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Original Articles

SANITATION OF THE TROPICS WITH SPECIAL REFERENCE TO MALARIA AND YELLOW FEVER *

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If we go back to the year 1898 and consider the point of view of Europeans and their American descendants about to enter the tropics, yellow fever to them was by far the most dangerous disease with which they were likely to come in contact. I am referring now principally to the American tropics, as yellow fever affected principally this region. And this was particularly the case when it was intended to send large bodies of non-immune persons, such as our army of occupation in Cuba. Yellow fever had caused more disaster to military expeditions going to these tropics than had all the other tropical diseases put together, and it had been equally fatal to non-immune individuals in civil life. Our military surgeons, therefore, in their sanitary recommendations considered more particularly this disease.

Yellow fever frequently affected the southern portions of the United States, and military surgeons were very confident of their ability to manage it as it affected small bodies of troops, such as were stationed in the southern portions of the United States. While they knew that they could not eradicate it from a locality in which it had taken hold, their experience had taught them that by marching a small command a few miles out into the country this command would be entirely safe for a considerable length of time. This was the only measure that they knew of at that time whereby considerable bodies of men could avoid this fatal disease; that is, they could move away from the infected locality and would not carry the infection with them.

With a considerable army in active military operations, however, this method can not always be carried out, as military necessity would frequently require the army to remain in the infected locality. For the above reasons the Army Medical Corps at this time concentrated its attention on the prophylaxis of yellow fever. For two years the sanitary authorities tried by all then known sanitary means to free Havana from yellow fever. Havana at that time was properly looked on as the center from which yellow fever frequently spread to all the neighboring regions in North, Central and South America. Yellow fever had never entirely disappeared from this city for a hundred and fifty years previous to this time. Non-immune population coming in all the time furnished sufficient fuel to keep this disease constantly active.

By February, 1901, we found that after two years of steady sanitary work we had made no impression on yellow fever in Havana. Instead of this disease decreasing, we found that it had rather increased as the non-immune population increased. A board of army medical officers had been especially detailed for the investigation of this work. They did a great deal that bore no particular fruit, but they finally found that Dr. Carlos Finlay, a distinguished physician of Havana, had been maintaining for the previous twenty years that a particular mosquito, the stegomyia, transmitted yellow fever from person to person. They took the matter up, experimented on human beings who volunteered for this purpose, and proved that yellow fever was transmitted in this way and probably in no other way. I think this work, as conceived by Dr. Reed, the chairman of this commission, is the most mathematically convincing experimental work ever carried out on a medical subject. The results were announced in the spring of 1901 and have since been accepted by all the scientific world. The sanitary authorities of Havana at once instituted measures based on this knowledge obtained by the Army Medical Board, and in less than a year yellow fever was entirely eradicated from Havana. Since that time the same measures have been tried at other places, and sufficient success has been attained to establish these measures as the routine to be adopted in freeing a municipality from yellow fever.

We have been equally successful in freeing the city of Panama, the city of Colon and the Canal Zone from yellow fever, although it was rife here when we came, and although we have introduced some 30,000 non-immunes from the United States since that time. In order to make our methods clear I will describe what I would consider a model organization for caring for a municipality of that size. Mind you, I am describing a model organization, not what we have, but what we would like to have. We have succeeded in getting yellow fever out of Panama, but it could have been done much more expeditiously with a better organization. I write this description for the benefit of men who are undertaking municipal sanitary work of this kind. I think it advisable to always try to get the very best, and then to go ahead and do all one can, on the best that one can get.

The stegomyia, the mosquito which transmits yellow fever, is a mosquito which infests cities and towns and the dwelling-houses of man. It breeds principally in rain-water barrels, cisterns, wells, house gutters, etc. Therefore, the chief work of sanitation would be done from the urban centers, through the municipal sanitary organization.

The first thing in undertaking such a work is to get the necessary funds, and to establish some system of account-keeping which will both protect the officer disbursing the funds and not be too cumbersome in administration. The next step is to get the authority necessary for enforcing the sanitary measures. To this end I would have an ordinance passed declaring it a nuisance for any property owner to have on his premises any mosquito larvæ, and prescribe a fine of from $5 to $10 for such offense. The sanitary officer should have powers, as far as these sanitary ordinances are concerned, such as the alcaldes of most Latin-American municipalities have. This would give the sanitary officer the power of assessing the fines or of revoking them at any stage of the proceedings. The fine should be collected through the courts, but the sanitary officer should be officially informed by the judge when the fine is collected, and also by the treasurer when the fine has been deposited in the treasury. In this way he can keep control of all the steps in the process.

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* Paper read before the Fourth Pan-American Scientific Congress, Dec. 25, 1908, Santiago, Chile.

Another ordinance should be passed giving the sanitary officer authority to abate these nuisances himself with his own force when they have not been abated by the owner of the property after a week's notice, and providing that the cost of such work be made a lien against the property, which cost is to be collected through the courts against the owner of the property. This is a very important measure, as it enables the sanitary officer at no great public expense rapidly to carry into effect his sanitary measures himself when the people affected are slow in executing the measures ordered.

A third ordinance should be passed directing that all cisterns, wells, gutters and water collections likely to breed mosquitoes must be either abolished or so screened and cared for that mosquitoes can not breed in them. With these three ordinances the health officer can rapidly get his community in such condition that very few stegomyiæ can breed, and the locality will soon be in such condition that there will be so few stegomyiæ that yellow fever can not spread.

The municipality should then be divided into inspection districts, each district to contain about 600 houses. An intelligent inspector should be placed in charge of each one of these districts and required to make a written report on every house in his district once a month concerning its sanitary condition. (An intelligent inspector should readily inspect twenty-five houses a day on the average.) His report should show the condition of the houses and premises, more particularly with regard to mosquito breeding places; how many receptacles actually had larvæ; how the barrels and cisterns were with regard to the screening; how the gutters were with regard to containing water, and as to whether there were other receptacles on the premises which were likely to breed mosquitoes. This report should go to the office daily, and the health officer should base his action thereon. The health officer should notify the owner of the premises to correct the nuisance reported by the inspector, and if on reinspection, which should be made at the end of the week, the nuisance was found to be still unabated, then the health officer should send his "cleaners" around who should clean up the premises. The inspector in charge of the cleaning squad should keep an accurate account of the expenses and this should be charged up against the property owner. If cisterns, barrels, etc., needed screening, gutters repairing, etc., the general carpenter should go around with his squad, put the property in good condition, keep an accurate account of his expenses, and charge this to the property owner. If it is a suburb of the town, and ditching and draining is needed, the health officer should send the inspector in charge of the draining squad out, who should see that the necessary ditching is done, rendering an account of his expenses and charging this against the property owner. For this phase of the work, then, the health officer should have a very intelligent man as inspector, at the rate of one to every 600 houses; a good inspector with a sufficient number of men to do the general cleaning up; an intelligent foreman carpenter in charge of a sufficient number of carpenters to do the necessary screening of cisterns, barrels, etc. All receptacles should be fixed by this squad so that they can not breed mosquitoes. Cisterns should be thoroughly covered and the hole that is left for the water to enter should be screened so that mosquitoes can not gain access to the cistern. Water barrels should be covered in the same way and a cheap wooden spigot placed near the bottom. Gutters should be so fixed that they will not retain water. If a general water supply can be introduced into the city the matter is much simplified, as then all receptacles for storing water can be done away with.

Such an organization, in my opinion, is all that is essential for yellow fever prophylaxis. While street cleaning, garbage collection, caring for night soil, etc., are very useful adjuvants to the general health and good appearance of the municipality, they have no direct bearing on yellow fever, and the people of a poor community, that had little money to spend, would be entirely justified, I think, in adopting the organization outlined, with the idea of keeping it up for a year or two, freeing their locality from yellow fever, and considering the other municipal work mentioned at some future time when they would be better able financially to carry it out.

The actual cost for a small municipality of about 600 houses, with an approximate population of 3,000 people, would be as follows:

	Monthly Salaries.
1 Health officer	$400
1 Clerk	125
1 Sanitary inspector	125
1 Chief carpenter	125
1 Head cleaning squad	125
1 Head ditching squad	125
20 Laborers at $30	600
Material	275
Total	$1,900

These are maximum figures and would probably not be paid under ordinary circumstances. They are based on the rates and salaries that at present prevail at Panama.

In addition certain measures should be carried out looking to the caring for the sick. An ordinance should be passed requiring all yellow fever suspects to be reported at once to the health officer. As soon as a case is reported the health officer, if he considers it yellow fever, should have the patient isolated at once, either by being sent to the hospital, which hospital should be carefully screened, or he should have the room where the patient is lying screened. I think it best to leave this to the choice of the patient. If the patient elects to stay at home the screening should be so done that there would be only one door of entrance, and this door should be guarded by a watchman of the sanitary department whose duty it is to see that no one has access to the patient except those authorized by the health officer; this with the object of seeing that non-immunes do not go and come.

After the case has terminated the building occupied by the sick person, and the contiguous buildings, should be fumigated with some good insecticide. I prefer sulphur wherever possible. Where sulphur can not be used I recommend pyrethrum. It is very important that the man at the head of affairs should have a thorough knowledge of the details of all these matters. He should know whether the screening is properly done; when fumigating, whether the pasting has made the building sufficiently tight, etc. It requires considerable experience to become expert in all these details, and a mere theoretical knowledge is at first not of much avail.

For the small community, above described, these measures of caring for the sick and destroying infected mosquitoes need not add to the force. The health officer himself would have plenty of time to look after the sick. The chief carpenter with his squad could do the screening, and the inspector in charge of the cleaning squad could do the fumigating.

The relative cost would, of course, decrease as the size of the municipality increased. Take a municipality ten times the size of the one described, with a population of about 30,000 people, who would live in some 6,000 houses. The personnel would be increased about as follows:

	Monthly Each.	Salaries. Total.
1 Health officer	$400	$400
10 Sanitary inspectors	125	1,250
2 Clerks	125	250
1 Chief carpenter	125	125
2 Carpenter foremen	75	150
1 Head of cleaning squad	125	125
4 Foremen	75	300
1 Chief of ditching squad	125	125
1 Foreman	75	75
60 Laborers	30	1,800
Material	400	400
Total		$5,000

Here you see that our unit of 600 houses, instead of costing $1,900 per month, would cost only $500 per month, and, of course, as the municipality increases in size the cost per unit would continue to decrease. In this estimate for a large municipality I am not including the cost of care of the sick, as the municipality of this size would necessarily have some hospital in which the sick would be cared for.

In the municipality the same measures that are directed against yellow fever will avail against malaria. This has occurred in Havana, Cuba. The anti-mosquito work done there in the past ten years has practically eliminated malarial fever. The deaths from malaria prior to 1896 averaged about 250 per year. This has gradually fallen until in the last year or two they have had less than fifty deaths per year. In a city situated as is Havana, this, I think, means the extinction of malaria. The fifty deaths occurring every year at present in Havana, due to malaria, are probably caused by the persons affected by malaria who come in from the rest of the island. Havana is the metropolis of Cuba; all the large hospitals are located there, and a great many people, whenever taken sick, come in from all parts of the island to these hospitals for treatment. In the ordinary course of affairs a large number of malaria patients come into the city from the rest of the island in connection with their routine business.

Great strides in diminishing the spread of yellow fever all over the world have been made in the last ten years. Ten years ago the four principal centers of yellow fever in the world were Vera Cruz, Havana, Rio Janeiro and Guayaquil. Of these Havana and Rio Janeiro were much more important centers of infection than Vera Cruz and Guayaquil. From Havana yellow fever has practically been eliminated, and within the last six months Rio Janeiro has been almost as successful. In Vera Cruz yellow fever has become sporadic instead of being endemic. Sporadic cases within the last year have occurred in several different parts of tropical America, and a few on the west coast of Africa, but nothing comparable with what it was ten years ago. It seems to me that yellow fever will entirely disappear within this generation, and that the next generation will look on yellow fever as an extinct disease having only a historic interest. They will look on the yellow fever parasites as we do on the three-toed horse—as an animal that existed in the past, without any possibility of reappearing on the earth at any future time.

Concerted effort on the part of the countries in which it now occurs, I think, would extinguish the disease at once at no very great expense and without undue labor. I believe that if this congress could get the governments of the various countries in which yellow fever has occurred during the past year to agree to keep such an organization as I have outlined, which could be sent at once to the locality where yellow fever appears, and there stamp it out, at the end of two years yellow fever would have disappeared from the western hemisphere.

THE FUNCTION OF THE END-ORGANS IN THE VESTIBULE AND SEMICIRCULAR CANALS

AND SOME METHODS FOR EXAMINING THESE CANALS IN PRACTICAL DIAGNOSIS

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In order to understand the disturbances in function arising from the diseases of the vestibule and semicircular canals, as well as the principles involved in diagnosing these conditions, it is necessary that one keep clearly in mind a few fundamental facts in regard to the anatomy and the physiology of these structures.

Only a few years ago physiologists looked on the internal ear as a mechanism that had to do solely with the function of hearing. This function they assigned to the three parts of the labyrinth as follows: To the end-organs in the cochlea was attributed the function of tone perception; to the end-organs in the vestibule the function of noise perception, and to the semicircular canals was attributed the function of determining the direction from which sound comes.

The more recent studies of the internal ear justify the conclusion that the cochlea alone is interested in sound perception, whether this be in the nature of noises or musical tones, and that the end-organs in the vestibule and semicircular canals have to do with the important function of preserving the equilibrium. This latter function is accomplished by these several end-organs as follows: From the vestibule we get our knowledge of position in space; from the semicircular canals our knowledge of turning motions. The data derived from these two sets of end-organs seems to be sufficient to account for the function of equilibrium.

The function attributed to the vestibule is accomplished as follows: There are located in the vestibule two end-organs, identical in structure, but placed on

will be much more readily obtained in cases in which a large perforation of the membrana tympani permits the water to come into direct contact with the wall of the labyrinth. This stimulation is also the more readily obtained by using water quite warm or quite cold. The force of the stream has naturally no influence on this stimulation.

The study of the occurrence of vertigo and nystagmus, both that observed in disease of the labyrinth and that brought on by syringing the ear with hot and cold water, has established the following facts, which are of great assistance in diagnosis not only of the labyrinth but of the cerebellum as well:

1. If the semicircular canals are normal and the ear is syringed with cold water, vertigo will result, and there will be set up a nystagmus increased by directing the eyes toward the opposite side. If the ear is syringed with warm water the same symptoms will occur, but the nystagmus will be toward the same side.

2. Should there exist an irritation of the endings of the vestibular nerve in the labyrinth, such as may be occasioned by a circumscribed suppuration in the labyrinth, there will be spontaneous nystagmus directed toward the same side. Syringing the ear with cold water will produce a positive reaction.

3. If there occurs a sudden destruction of endings of the vestibular nerve, such as would be occasioned by a diffuse suppuration in the labyrinth, there will be set up a spontaneous nystagmus directed toward the opposite side, but lasting only from a few days to several weeks. This nystagmus has its origin in the opposite normal ear. Syringing the affected ear with hot and cold water produces no response.

4. In case of long standing destruction of the nerve endings in the vestibular nerve, such as occurs in chronic diffuse labyrinth suppuration, there will be no spontaneous nystagmus and no reaction can be obtained by syringing the ear with hot or cold water.

5. In case of cerebellar disease, such as cerebellar tumor, cerebellar abscess or a meningitis in this locality, there will occur a spontaneous nystagmus directed toward the affected side.

It follows, therefore, that in case there exists pronounced rotating nystagmus, and the membrana tympani is normal, showing an absence of an inflammation in the middle ear, the presence of a cerebellar tumor should be suspected. On the other hand, should there exist pronounced spontaneous rotating nystagmus in a case of suppurative otitis media without fever, but with severe deafness, and this nystagmus is directed toward the affected side, while the syringing of the ear with cold water produces no response, the diagnosis of a cerebellar abscess is the probable one. Here the complete destruction of the hearing in the affected ear would indicate a probable diffuse suppuration of the labyrinth. The failure to get the caloric response on syringing points to destruction of end-organs in the semicircular canals. The only spontaneous nystagmus which this lesion could produce would be directed toward the opposite side. The absence of rise of temperature would in most cases eliminate a meningitis as the source of the nystagmus, while a cerebellar abscess pressing on the vestibular nerve could produce a spontaneous rotating nystagmus, which would be increased by directing the eyes toward the affected side.

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INTESTINAL LOCALIZATION

WITH CERTAIN OTHER SUBJECTS RELATING TO THE SURGERY AND SURGICAL ANATOMY OF THE SMALL INTESTINE AND ITS MESENTERY

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This article is, with a few changes, the text of a demonstration on the cadaver which I gave in Boston, May 1, 1908, by invitation, before the Society of Clinical Surgery. The subjects considered have little to connect them, except that all of them relate to the surgery, or to the surgical anatomy, of the small intestine and its mesentery. The procedures described are taken mostly from cadaver studies which I have made from time to time. Some of these studies have already been published at greater length in former articles.[1] The object of the present article is to present, in a form as condensed and practical as possible, some of the procedures with which these studies were concerned. An effort has been made to elucidate the text by a free use of illustrations—a method which, useful as it may be in many instances, is unfortunately not wholly satisfactory as a substitute for actual demonstration.

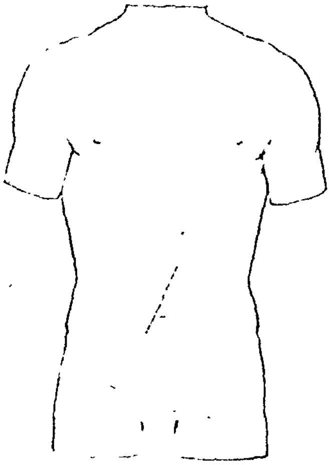

Fig. 1.—Diagram showing on the abdominal wall a surface marking, which corresponds approximately with the root of the mesentery. (This diagram and the next one are taken from a former article, but a different figure has been used.)

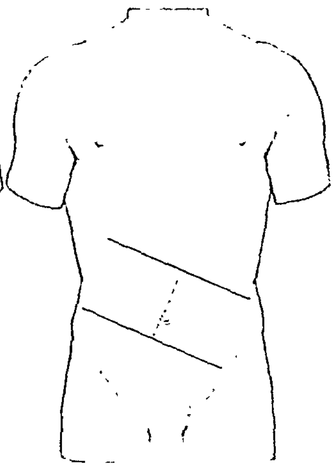

Fig. 2.—Diagram showing on the abdominal wall three oblique lines. The dotted line (the same as already shown in Fig. 1) corresponds approximately with the root of the mesentery; the two heavier lines indicate the division of the abdominal cavity into thirds.

While some of the procedures described have repeatedly been employed with success in operations, others—which have not been used in operations—are presented merely as procedures which, from an anatomic point of view, are possible. Others, again, are simply anatomic demonstrations.

THE MESENTERY

As the mesentery will frequently be referred to in this article, it is desirable at the outset to make a few general remarks about this structure, especially in regard to its root, its shape, and the disposition of its different parts.

The Root of the Mesentery.—The part of the mesentery where the vessels enter is, as pointed out by Treves,

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[1] Intestinal Localization, Ann. Surg., October, 1903; Studies in the Surgical Anatomy of the Small Intestine and its Mesentery, Ann. Surg., October, 1905; Experiments in Flushing the Intestinal Canal with Salt Solution Through Multiple Enterotomy Openings, Ann. Surg., June, 1908.

This division of the abdomen into three compartments is shown in Figure 2. Now, speaking generally (for one should not forget that there are occasional exceptions) the compartment above the first line lodges the uppermost third of the small intestine, that between the first and second lines lodges its middle third, and that below the second line its lowest third. The surgeon may, therefore, knowing what compartment his incision has opened up, roughly determine what part of the intestine he is most likely to encounter there. If his incision is in the upper part of the abdomen, especially if it is in the middle line or to the left of it, any loop of small intestine he meets will belong probably to the uppermost third of the intestine; if his incision is in the middle part of the abdomen or in the left iliac fossa, the loops will belong probably to the middle third; and, finally, if his incision is in the right iliac fossa or to the right of the rectus muscle, or even in the median line between umbilicus and pubes, the loops will probably belong to the lowest third of the intestine.

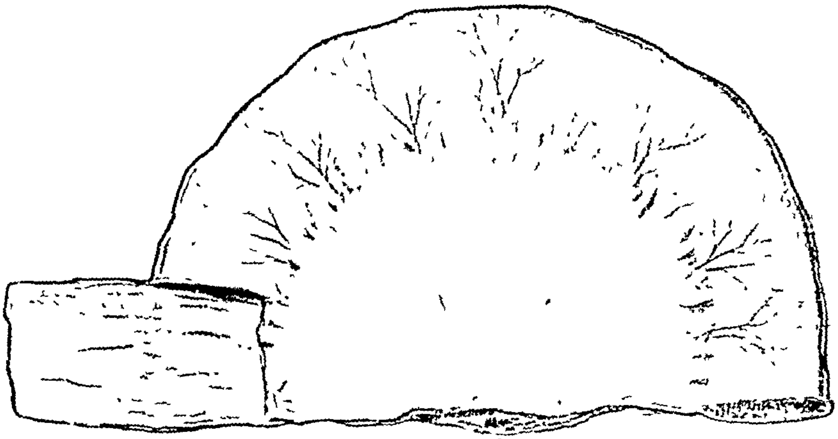

Fig 6.—A loop, with attached mesentery, from the small intestine of the same subject as the loop in Fig 5. It belongs to the lowest part of the bowel, as is shown by its thinness, its small caliber, the absence of vascularity, and of valvulæ conniventes; also by the fact that the vessels in the mesentery are hidden in a thick layer of fat. Little tabs of fat encroach on the wall of the intestine itself.

2. *The Characteristics of the Intestine (and Attached Mesentery) in the Uppermost Third of the Bowel Compared with Those of the Intestine (and Attached Mesentery) in the Lowest Third.*—If the surgeon picks up a loop of small intestine which belongs to the uppermost third of the bowel (Figs. 3 and 5) he will notice that it is thick[3] and that in many cases it feels even "fleshy." Holding it now between the thumb and fingers of one hand, and stroking it downward in the direction of its axis, between the thumb and fingers of the other, he will distinctly feel the valvulæ conniventes, as his fingers pass over them. He will probably observe that the intestine is of large size and very vascular, being covered with numerous branching vessels. Indeed, everything about the loop will probably suggest to him a high degree of physiologic activity of this part of the bowel.

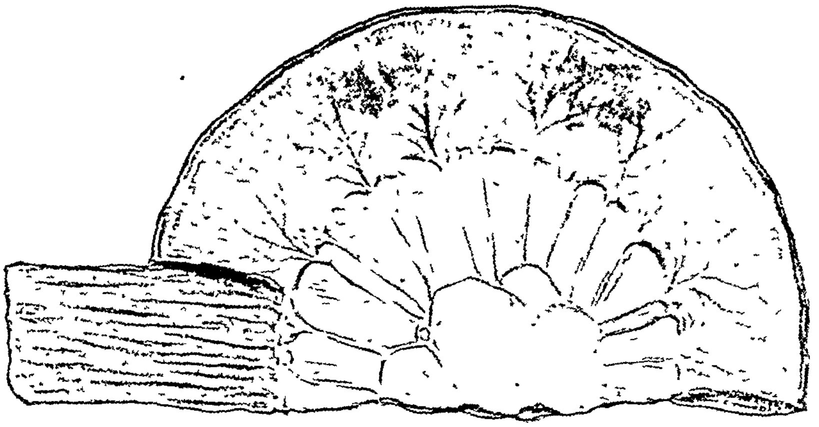

Fig 5.—A loop, with attached mesentery, from the small intestine of a subject (female), which had less muscle and more fat than the subject which furnished the specimens in Figs 3 and 4. This loop belongs to the uppermost part of the bowel, as is shown (just as in Fig 3, though most of the characteristics are less marked here than there) by its large size, its comparative thickness, its vascularity, and the presence of large and numerous valvulæ conniventes; also, by the large, long and straight vessels in the mesentery, which vessels radiate to the gut from arches mostly primary. There is a good deal of fat in the mesentery, and, because of this, the vessels are somewhat obscured, and the transparent areas near the intestine are very small.

The amount of information which the surgeon will get by an examination of the attached mesentery depends largely on the amount of fat there. If, as one would expect in a thin subject, there is little fat in the mesentery, he will be able to see the blood vessels, to note their characteristics, and thus to get considerable information as to the part of the mesentery he is examining; but, if there is so much fat as to conceal the vessels entirely, he will, for localization purposes at least, not secure very much information, unless, by transmitted light, he is able to get some idea as to the course of the vessels. Luckily, however, the fat is not often present to such a degree as entirely to conceal the vessels (Fig. 5), and they—at least that part of them nearest to the intestine—are usually fairly well defined.

In a case, then, where the vessels are visible, the surgeon will probably notice at once that these vessels are large, long and straight and that they radiate from the depths of the mesentery directly to the intestine. He will probably also be able to see, especially if he retracts the edge of the wound, that these vessels arise mostly from primary arches, deep in the mesentery. A few secondary arches may be seen, but these are usually more characteristic of the mesentery opposite lower parts of the intestine. The parts of the mesentery between the vessels will probably be more or less translucent, or, near the intestine, even transparent. These transparent spaces between the vessels appear like little windows, as it were, through which one may look; because of their shape and transparency I have called them "lunettes." Sometimes these little spaces are so small that they can not be seen without firmly drawing up the loop of bowel, when, the mesentery being tense, they can usually be made out very close to the intestine.

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[3] The word "thick" is used here in a relative sense. It means that this loop of bowel is thick as compared with a loop from the lowest part of the same bowel. Vigorous males would be apt to have a thick muscular intestine, while in less strongly developed individuals, as, for instance, in women, the intestine would be thinner throughout. In any intestine, however, the upper part of the bowel is usually appreciably thicker than its lower part. Most of the other characteristics spoken of are also relative.

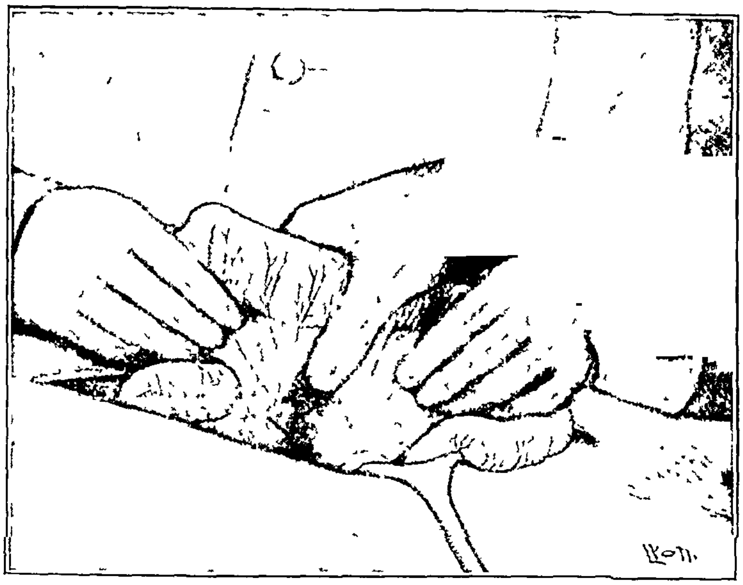

Fig. 7.—A method of determining the real direction of the intestine by palpation of the root of the mesentery.

The liberal supply of large vessels in this part of the mesentery suggests at once to the surgeon's mind that more blood is going to the attached loop of intestine than is necessary for the nourishment of this loop; and, again, the idea of the high degree of physiologic activity of this part of the intestine is forced on his attention. Occasionally the surgeon may be able to see the lacteals in this part of the mesentery; for these little vessels, when filled with chyle, appear as milk-white streaks proceeding, in an irregular course, from the intestine to the deeper parts of the mesentery.

Turning now to a consideration of a loop of bowel—with its attached mesentery—from the lowest third of the intestine, the surgeon sees a different picture (Figs. 4 and 6). This loop of bowel is usually thin, and is generally of a smaller caliber than that of a loop from the uppermost part of the bowel.[4] Few valvulæ conniventes can be felt through its walls, or even none at all. Finally, it is probably less vascular than is the loop higher up in the bowel.

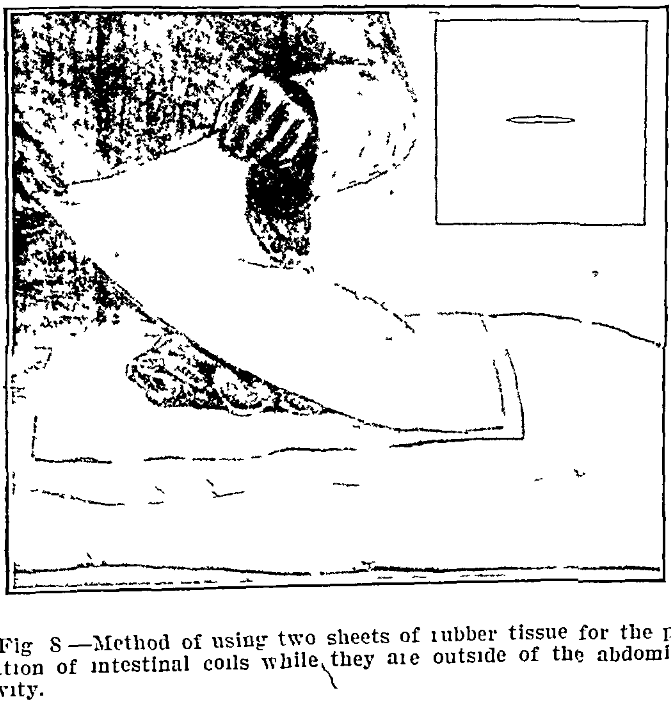

Fig. 8.—Method of using two sheets of rubber tissue for the protection of intestinal coils while they are outside of the abdominal cavity.

The vessels of the mesentery, if they can be seen at all through the fat, are comparatively short, small and often more or less tortuous in their course. If the edge of the abdominal wound is strongly retracted these vessels may, in case the mesentery is very thin, be seen to rise from secondary or even tertiary arches. It is unlikely that the surgeon will see any lacteals in the mesentery opposite this part of the intestine. Everything, in fact, will probably suggest to him a low degree of physiologic activity. This low degree of physiologic activity probably explains why such great lengths of this part of the intestine may be excised without seriously interfering with the nutrition of the patient. Excision of only a few feet of the upper part of the jejunum would probably kill him.

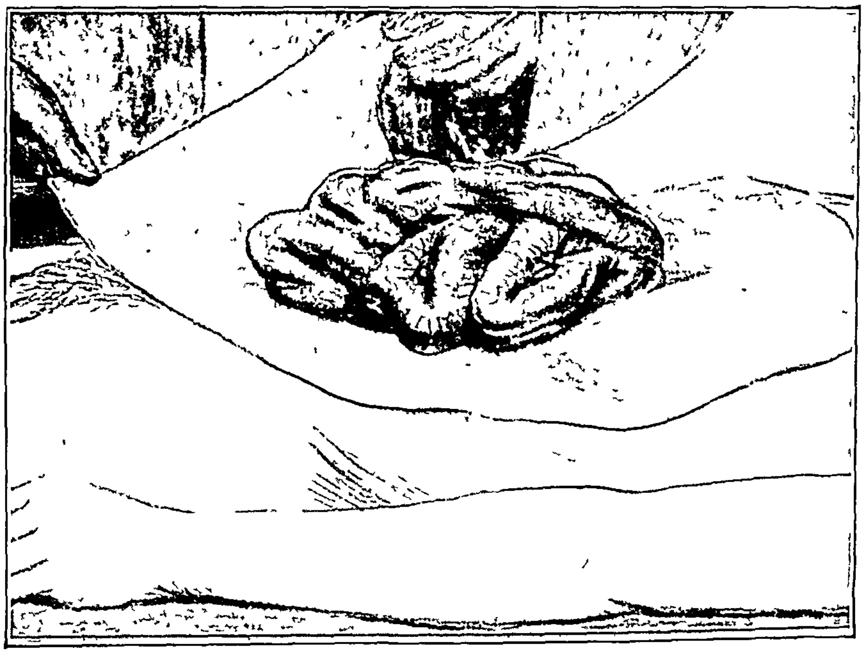

Fig. 9.—Method of using a single sheet of thin rubber tissue for the purpose of protecting the coils of small intestine during the period while they are outside of the abdominal cavity.

There is almost always more fat in this part of the mesentery than there is in that part of it attached to the upper portion of the bowel. For this reason the mesentery here is much more opaque. Moreover, the fat usually lies nearer to the intestine, a common characteristic of this part of the mesentery being, in fact, that little tabs of fat project from it on the bowel itself (Fig. 6)—a condition rarely found in the mesentery opposite the upper part of the intestine, except in subjects with an unusual amount of fat.

Recapitulation.—The distinguishing characteristics, then, of a loop of bowel near the upper end of the intestine, and of the mesentery attached to it, are as follows:

The bowel is usually thick, of large caliber, very vascular, and it contains large and numerous valvulæ conniventes, which can easily be felt through the walls of the intestine. The attached mesentery—if there is not too much fat in it—exhibits large, long, straight vessels radiating to the intestine from arches (principally primary) deep in the mesentery. There may be so much fat in the mesentery as to obscure the vessels, or even to hide them, but ordinarily the mesentery here is likely to be thin and to show the vessels, and between them translucent, or even transparent, areas close to the intestine.

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[4] One should not forget, however, that, on the living subject, the apparent size of a loop of bowel as well as the thickness of its walls may vary in accordance with its state of contraction or distension. In some cases of chronic obstruction, also, the size of the intestine above the obstruction may be greatly increased, as well as the thickness of its walls.

On the other hand, the distinguishing characteristics of a loop of bowel near the lower end of the intestine, and of the mesentery attached to it, may be summarized as follows:

The bowel is usually thin, is likely to be of comparatively small caliber, and only moderately vascular; while probably no valvulæ conniventes can be felt through its walls. The attached mesentery has relatively small, short, tortuous vessels, which spring from secondary, or even tertiary loops deep in the mesentery. There is usually more fat in this part of the mesentery than there is in that part opposite a loop near the upper end of the intestine, and, for this reason, the mesentery here is usually thick and opaque and the vessels are obscured, or, in very fat mesenteries, entirely hidden. In many cases little tabs of fat can be seen extending from the mesentery a short distance on each side of the bowel.

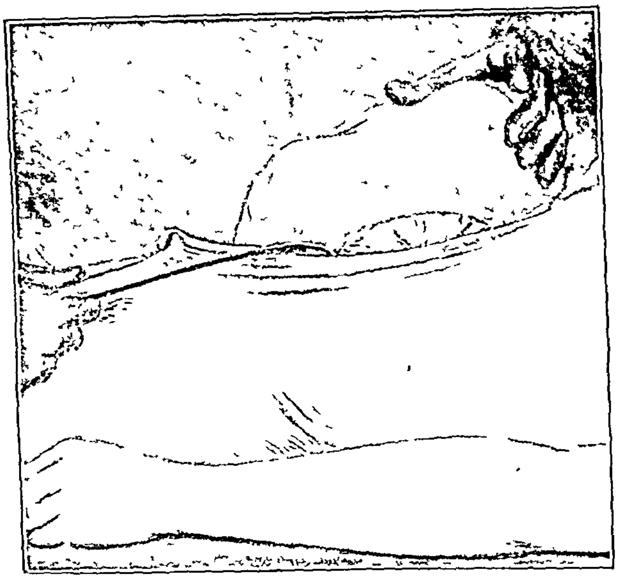


Fig. 10.—Method of drawing to one side the small intestine (enveloped in thin rubber) and retracting the abdominal wall on the other side, so as to bring into view the great left fossa of the abdominal cavity.

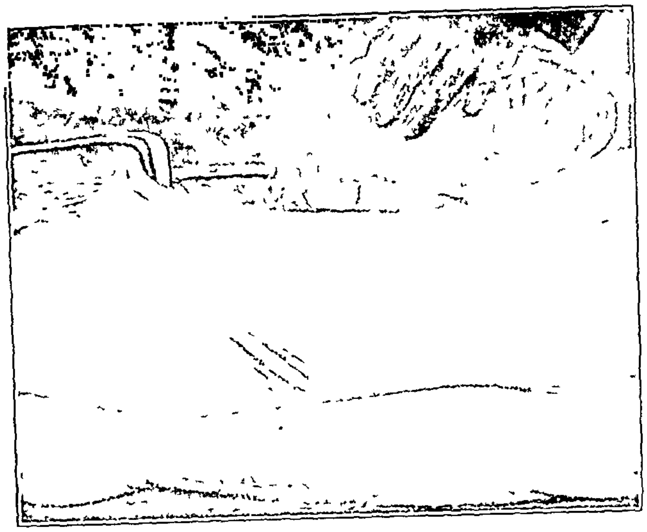
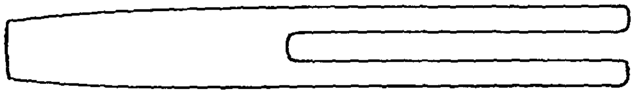


Fig. 11.—Method of inspecting the pelvis while the abdominal wound at its lower end is broadened and drawn downward and the small intestine, protected by a thin rubber covering, is gently drawn upward.

The characteristic features of the intestine (and its attached mesentery) in its upper part are thus contrasted with those of the intestine (and its mesentery) in its lower part, in order to emphasize the differences between them. The transition which these features undergo from one end of the intestine to the other is a gradual one: and it is by an estimate on the part of the surgeon as to the stage in this transition, which any given loop represents, that he is assisted in getting a fair idea as to the position of this loop in reference to the rest of the intestine. The thicker, the larger, the more vascular the loop, the more distinctly the valvulæ conniventes can be felt through its walls; and, in the mesentery, the larger, the longer, the straighter the vessels, and the greater the transparency, or, at least, the translucency, of that structure, the more probable it is that the loop in question belongs to the upper part of the bowel.

On the other hand, the thinner, the smaller, the less vascular the loop, the less the valvulæ conniventes can be felt through its walls: and, in the mesentery, the smaller, the shorter, the more tortuous the mesenteric vessels, the thicker and more opaque the mesentery itself, especially if tabs of fat project from it on the bowel, the more certain it is that the loop belongs to the lower part of the bowel.

It is not by the presence of any one of these characteristics that the surgeon is able to get a satisfactory idea as to the real position in the intestine of any loop he may examine, for there is no single sign so characteristic of any part of the intestine as to enable him to determine what that part is, except at the two extremities where the intestine is fixed. He must, therefore, estimate the position of a given loop by a combination of characteristics just as he makes a diagnosis of a disease by a combination of symptoms. In making this estimate he is also influenced, as already stated, by knowing what part of the intestine he is most likely to meet with in the wound he has made.



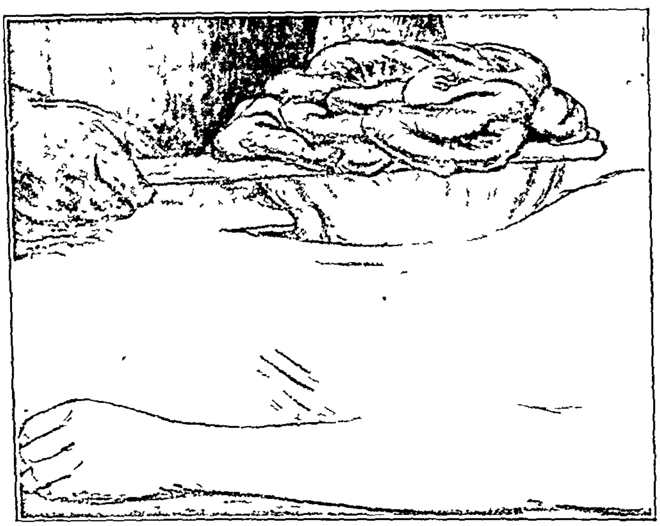


Fig. 12.—The elevation of all the coils of the small intestine on an instrument specially designed for this purpose.

It is in this way that the surgeon localizes a loop of bowel, and, though he may never do so exactly, yet, with a little practice, he ought to do so near enough for his purpose. When he needs the information, this is certainly better than no localization at all.

THE DETERMINATION OF THE REAL DIRECTION OF THE BOWEL IN ANY GIVEN LOOP

To know the real direction of the bowel in any given loop (or, in other words, to discover which is the proximal end of the loop and which is the distal) is, of course, often useful to the surgeon; therefore, it seems appropriate here to describe a method by which, in cases in which the abdominal wound is large enough to permit palpation of the mesenteric root, he can, without much trouble, determine it.[5] The procedure is as follows (Fig. 7): The loop is drawn well out of the wound, and its two extremities held upward by the assistant, the axis of the loop being kept by him parallel to the known axis of the root of the mesentery. The surgeon's right hand is now applied to the loop in such manner that his thumb is on one side of the mesentery and his first two fingers are on the other. The thumb and fingers are then gently pushed downward in the direction of the root of the mesentery. If, by palpation of the mesentery, the surgeon detects no twist in it, he at once knows that the upper end of the loop (as it is then held) will, if followed up, conduct him to the duodenum, and that the lower end will conduct him to the ileocecal valve. If, however, there is a twist in the mesentery, the surgeon should withdraw his hand, remove the twist by turning the bowel, and examine again. When, finally, no twist remains in the mesentery, the surgeon knows, just as in the first instance in which no twist was found, that the end of the loop which is uppermost is the one which leads to the duodenum, and that which is lowest to the ileocecal valve.

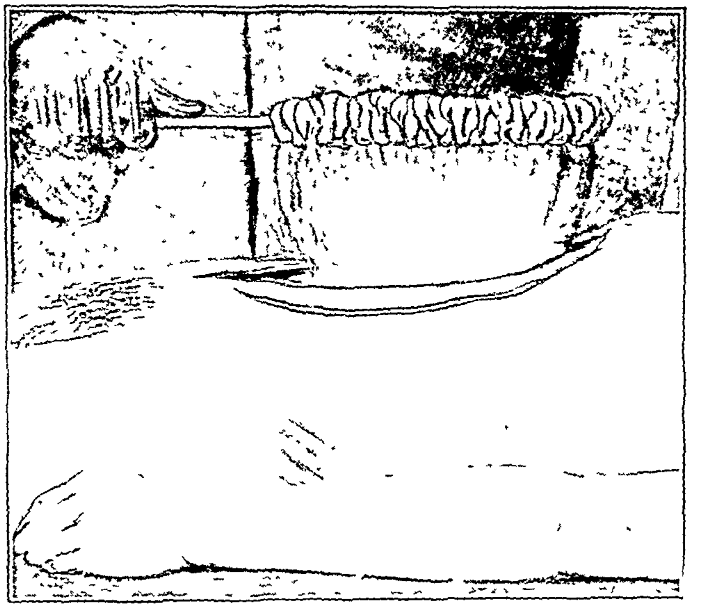


Fig. 13.—Small intestine suspended on a rod, after having been gathered up on it loop by loop

The same determination may, in certain cases, be made by inspection alone, if the abdominal wall on one side of the wound, and the coils of intestine under it, are strongly retracted.

PROTECTION OF COILS OF INTESTINE OUTSIDE THE ABDOMINAL CAVITY

As it often happens that the surgeon brings out a considerable part of the intestine through an abdominal wound, or that, in spite of his efforts to keep coils, when they are distended, within the abdominal cavity, they still protrude through the wound, it is obviously desirable to protect them so long as they remain outside of the abdominal cavity. Towels, which have been wet with hot saline solution and wrapped about them, are heavy, rough and easily displaced; they also soon get cold. In a number of operations on patients, as well as on animals, I have found the use of two sheets of thin rubber to be of much value in protecting these intestinal coils from injury and infection, and in keeping them warm and moist (Fig. 8). One of these sheets, with a short slit near its center, is laid on the abdomen in such position that the slit is directly over the abdominal wound. The intestines are then drawn out through the wound and through the slit, and are made to rest on the smooth upper surface of the sheet of rubber. If this sheet is large enough—it should be at least eighteen inches square—the bowels, on account of the restraining effect of the mesentery, can not reach beyond its borders. The second sheet of rubber is used to cover the bowel. If the surgeon wishes for any purpose to open the bowel, he can perforate the second sheet, and, through the opening thus made, he may draw out the loop of the bowel on which he intends to operate; or, if he prefers to do so, he may, without perforating the second sheet, draw this sheet around the loop of bowel, constricting the loop as much as he wishes by drawing a piece of the rubber sheet tightly about it, and fastening the ends of this piece together with the hemostatic forceps.

By means, then, of these two sheets of thin rubber the bowels may be kept moist and warm and protected from injury and infection.

If the lower sheet of rubber is large enough it may be turned up over the bowels in the way indicated in Figure 9, and thus be sufficient protection to them, without the second sheet being needed.

Even in cases in which, for the purpose of opening the intestine, only a single loop of bowel is drawn outside of the abdominal cavity, this loop may, before it is opened, first be drawn through a small slit in a sheet of this rubber, and the peritoneal cavity, by this maneuver, be sufficiently protected from the escaping contents of the bowel. It would seem that surgeons might well learn a lesson from the dentists in regard to the use of the rubber dam.

It is well to have these sheets of rubber sterilized, and, like rubber gloves, kept ready for use. They may be soaked in warm salt solution just before using.

INSPECTION OF THE ABDOMINAL CAVITY WHEN THE SMALL INTESTINE LIES OUTSIDE OF THE ABDOMINAL WALL

If all of the movable part of the small intestine is outside of the abdominal cavity, and rests between the two rubber sheets, the great cavities of the abdomen (that is, the fossa on the left side, that on the right, and, also, the cavity of the pelvis) may be inspected with comparative ease—and such of their contents as remain examined—by gently drawing the rubber sheet and the bowels first to one side, then to the other, and finally upward, a broad retractor being used at the same time to draw the abdominal wall away from the mesentery (Figs. 10 and 11).

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[5] When I first made tests in reference to this procedure I thought that the principle on which this determination rested was new; but, later, I learned that it had already been suggested by Dr. R. F. Rand (Lancet, Dec. 2[illegible], 1883, p. 1083). I have also found a few references to the principle in text-books—of later date, however, than that of Dr. Rand's article. But so far as I know, the idea of the surgeon's thumb and fingers "straddling" the loop, as it were, so as to allow palpation of both sides of the mesenteric root at once, is not suggested in any of these places.

This same procedure has been carried out (on the cadaver, at least) even more satisfactorily by the use of a large instrument, shaped like a tuning-fork, and consisting of two parallel arms and a broad handle (Fig. 12). The instrument is well rounded and smooth, so as to minimize the possibility of damaging the intestine or mesentery. The arms are eight and one-half inches long, and the interval between them is a little less than three-quarters of an inch. The whole instrument is about fifteen inches long. It is intended for the purpose of elevating and supporting the intestines: during which process the mesentery, in a continuous flat sheet, occupies the long narrow interval between its two arms. This instrument is placed in position in one of two ways:

1. It may be held flatwise over the abdomen, and in such position that the long space between its two arms lies parallel with and directly over the abdominal wound. A loop of small intestine near the ileocecal valve is drawn out of the wound and pulled through the space between the two arms of the instrument, and then turned to one side or the other. The upper end of the loop is then gently pulled on, and as much more of the intestine as it is desired to take out is gradually drawn up through the opening and turned over one of the arms. Nearly the whole of the small intestine can in this way be drawn up between the arms of the instrument and made to rest on their upper surface. When the intestines are on this instrument, they can easily be moved *en masse* to one side or the other, thus making it easy to inspect the large fossæ of the abdomen, the edge of the abdominal wound being first, of course, strongly retracted.

2. The instrument may be passed at once under the mass of intestines, its two arms slipping along the two sides of the mesenteric root, the mesentery itself entering the space between them. This is done by taking up the lower end of the ileum into the space between the arms of the instrument, and then working them gently upward along the back part of the abdominal cavity, so as to include the whole of the mesentery along its base. This procedure will probably be found much easier to execute than the first method in cases in which the intestinal coils are much distended with gas.

DEMONSTRATION OF INTESTINE AND MESENTERY AT THE SAME TIME

For the purpose of demonstrating the mesentery and small intestine at the same time I have frequently gathered up the intestine on a rod, the rod being introduced into the intestine through a small wound a few inches above the end of the ileum, and the whole, or nearly the whole, of the intestine drawn over the end of the rod.

When this has been done and the rod, with the intestine on it, is drawn upward so as to stretch the mesentery, a very satisfactory view of intestine and mesentery together may be obtained (Fig. 13).

INTESTINAL TUBAGE

It was several years ago (1903), while demonstrating the intestines gathered on a rod, as already described, that the idea occurred to me of using a rigid tube in much the same manner that I used the rod, the tube being for the purpose, however, of emptying an intestine full of gas and liquid feces. Since then I have experimented on many occasions with such a tube on the distended intestines of cadavers, and, in a number of instances, I have used the method on patients. The tube can not be pushed into the intestine, but the intestine must gradually, by means of a piece of gauze, be drawn over the end of it (Fig. 14). The tube opening into the intestine, for passage of the tube, may be made near one end of the intestine, and the intestine slowly drawn over the end of the tube, or it may be made somewhere near the middle of the intestine, and the intestinal canal emptied in both directions.

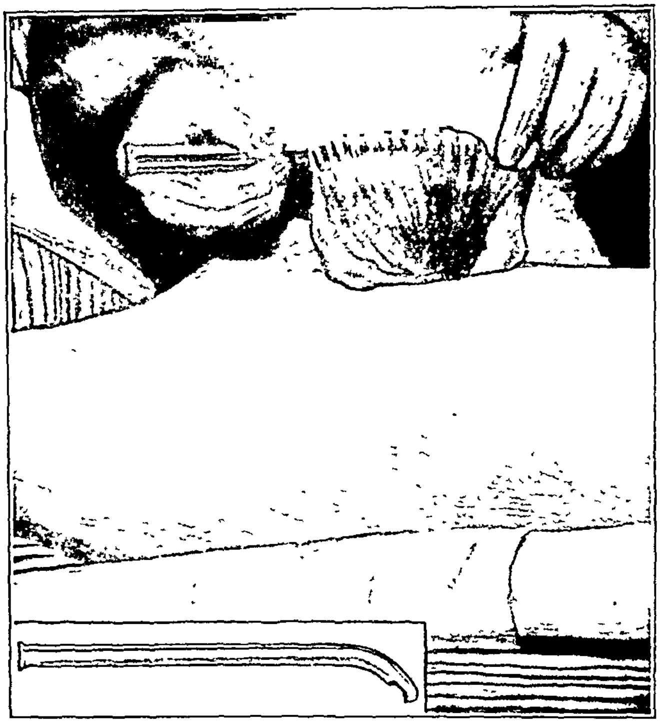

Fig. 14.—Intubation of the intestine on the cadaver. The intestine is being drawn over the end of the tube by means of a piece of gauze. Some of the tubes used in these experiments were straight and some were curved. The one shown at the lower left-hand corner of the picture has a curved extremity.

THE PELVIC FOLD OF THE MESENTERY

I can not close this article without referring to certain surgical procedures which, directly or indirectly, have to do with the lowest fold in the mesentery, which fold—for lack of a better name—I have ventured to call "the pelvic fold of the mesentery." This fold consists of that part of the mesentery which is attached to the intestinal coils in the pelvis. The posterior border of this fold forms a definite landmark there. From a wound in the right iliac region, it can easily be reached and palpated by the forefinger of the operator; in fact, if the wound is large enough all the pelvic coils of intestine can be lifted out of the pelvis by pressure upward on this fold, to which, of course, the coils of intestine are all attached.

In case it is thought necessary to irrigate the abdomen from a wound in the right iliac region, it is well to know that the irrigating nozzle may best reach the great fossa on the left side of the abdomen by being carried behind this pelvic fold and then upward.

In connection with the technic of irrigating the abdominal cavity, it is well to remember that, in a way, the mesentery may be looked on as a sort of partition, or fence, separating the two sides of the abdominal cavity. Though this partition may be curved, twisted and reduplicated in many different ways, yet it still remains a partition, and, in a sense, it separates one side of the abdominal cavity from the other. Now, for those operators who practice irrigation of the peritoneal cavity, it is well to know that the fossæ on both sides of this partition may easily be reached by the nozzle of the irrigating tube, through almost any wound where a loop of small intestine presents itself; for the nozzle may be passed down on each side of the mesentery attached to the loop toward the mesenteric root, care being taken to follow the surface of the mesentery closely. In this way the tip of the irrigating tube may, in almost any abdominal wound, be carried first to the bottom of one abdominal fossa and then to that of the other.

There is one more point concerning the pelvic fold of the mesentery which seems well to deserve the surgeon's attention. It is that whenever, through an incision in the right iliac region, the operator desires at once to find the lower end of the ileum (as in perforated typhoid ulcer, for instance) he can do so by the following method: He passes his index-finger (two fingers are sometimes better) along the parietal peritoneum at the back of the pelvis, and around the base of the pelvic fold of the mesentery (Fig. 15). He now hooks his finger about the pelvic fold and closes the tip of the thumb on the tip of the finger, so as to grasp that fold and the loop of intestine which is with it. If he now allows the fold of mesentery gradually to slip away from between his thumb and finger, and then brings up the loop of bowel attached to it, he will find, in almost all instances, that he has in his grasp the ileum at a point close to the ileocecal valve. From this point he can then follow the ileum to any distance from below upward. If, on the other hand, he wishes to find the cecum, or appendix, he can be conducted to them by following the ileum for a few inches in the other direction.

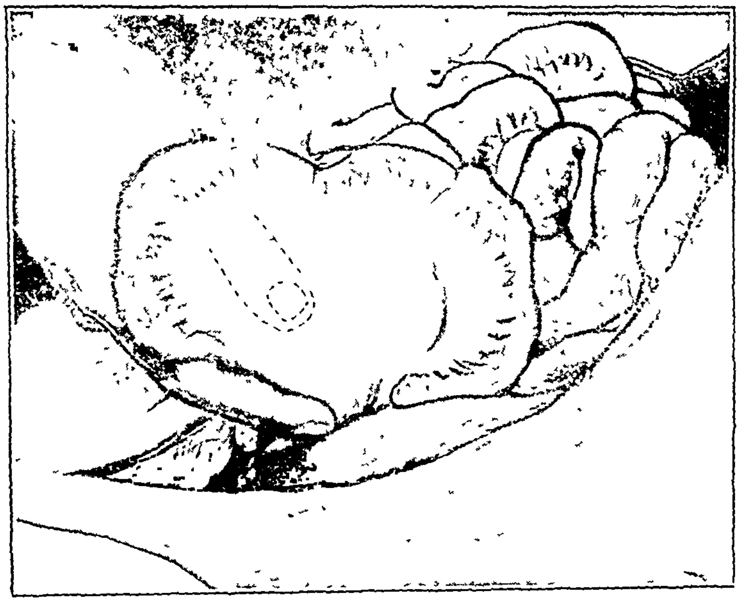

Fig. 15.—Method of picking up the lowest end of the ileum through an abdominal wound. The forefinger is seen, as it rounds the pelvic fold of the mesentery. The thumb (indicated in dotted lines) is on the other side of the mesentery. (Reproduced, with a few changes, from a figure in a former article.)

SUMMARY

The special points which I wish to emphasize in this article are as follows:

1. The surgeon can, approximately at least, tell to what part of the small intestine any given loop belongs.
2. He can tell the real direction of the bowel in that loop, provided the wound is large enough to allow him to palpate the mesenteric root; or, after the bowels and the abdominal wall have been retracted, to see it.
3. Intestinal coils outside of an abdominal wound can be efficiently protected between two thin sheets of rubber.
4. When the intestines are enveloped (in the sheets of rubber) the abdominal fossæ and the pelvis may be inspected much more thoroughly than when the coils of intestine are within the abdominal cavity.
5. As a demonstration, the mass of bowels, comprising nearly the whole of the small intestine, can be supported well above an abdominal wound by means of a special holder.
6. As a demonstration, the intestine and mesentery may be satisfactorily shown at the same time by gathering the intestine on a rod, and then elevating the rod horizontally above the abdominal wound.
7. In order properly to introduce a long rigid tube into the intestines for the purpose of emptying them, the intestines should be drawn over the end of the tube, and "gathered" on it in a manner similar to that in which, for demonstration, the rod was used.
8. The base of the pelvic fold of the mesentery is an important landmark in the lower abdomen, and it can usually be palpated from a wound in that part of the abdomen.
9. The great fossa on the left of the abdomen may be reached from a wound in the lower abdomen by carrying the tip of an irrigating nozzle well around the pelvic fold of the mesentery, and then pushing it upward.
10. Finally, the lowest coil of the ileum can be picked up at once between the surgeon's thumb and finger by causing them to grasp the base of the pelvic fold of the mesentery and the loop of bowel which is attached to it.

BIBLIOGRAPHIC REFERENCES

I wish to acknowledge assistance in regard to the anatomic disposition of the mesentery and the course of the intestine, from the excellent articles by Trevers, Henke, Seinoff, Weinberg and Mall, and also—concerning the arrangement of the mesenteric vessels—from the valuable paper by Prof. Thomas Dwight.

Treves: Three Lectures on the Anatomy of the Intestinal Canal and Peritoneum, Brit Med. Jour, Feb 28, 1885, p. 415 et seq

Henke: Arch f. Anat. u Entwcklngsgesch. (His), 1891, p. 89.

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Weinberg. Internat. Monatschr. f. Anat. u. Physiol., 1896 xiii, 89

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67 Marlboro Street.

Deaf-Mutism in Idiots.—H. B. Sheffield, New York, states that congenital deafness is associated with mutism, but that even when hearing is intact few idiots are able to speak. Some of them by imitation learn to utter a few words, but their expressions usually bear no relation to any distinct desire or action, and they understand words spoken to them no better than what they speak. Moreover, their power of imitation is very much delayed in development or may never become manifest—all depending on the faculty of attention. In partial idiocy, such as mild forms of infantilism, cretinism, encephalitis or microcephalus, the power of conversation may reach a certain degree of potency, but the vocabulary is very limited and fragmentary.—*Post-Graduate*, February.

THE REPAIR OF THE INTERNAL RING IN OBLIQUE INGUINAL HERNIA*

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An understanding as to the various steps necessary in the repair of oblique inguinal hernia may be materially aided by a comparison of the relations of the normal structures with those in which a hernia exists; and these are shown in the following parallel columns and in Figures 1, 2, 3 and 4:

Structures.	Normal.	Hernia.
Parietal peritoneum.	Smooth and even..	Outward bulging, forming the sac.
Internal ring......	Snugly surrounds cord.	Enlarged downward and inward, surrounds the cord and sac.
Internal oblique muscle.	Covers and protects the internal ring.	Does not cover, or only partially covers the internal ring.
Inguinal canal.....	Oblique, long and narrow.	Less oblique, shorter and wider.
External ring......	Small and triangular.	Enlarged upward and round.

Radical operation for the cure of inguinal hernia should consist of an attempt to restore the various structures to their normal relations.

In the majority of operative methods in vogue at present no attempt is made to reproduce the anatomic relations, the result being an alleged improvement on Nature, as is exemplified by the Bassini method. Synchronous with and largely due to the teachings of Ferguson, there has been an increased employment of operative procedures in which the anatomic relations are more or less completely replaced, Nature being imitated in the attempt at cure.

The rationale of so doing has been well emphasized by various observers. For example: the removal of the sac at the neck with the redundant parietal peritoneum has been emphasized by many, but the etiologic importance of a congenital sac as brought out by Mr. Hamilton Russell[1] of Melbourne in his "saccular theory" is a most convincing argument in favor of this detail of the operative treatment.

The advisability of placing active, red muscle, the internal oblique, external to the internal ring, to act as a protection or check against the protrusion of viscera through the ring, we owe to Ferguson.[2]

That the inguinal canal must be long and oblique so that with increased intra-abdominal pressure the walls of the canal will be held in more intimate apposition, and hernia be prevented by a valve-like action of the canal, was perhaps first emphasized by Marcy.[3]

The necessity of the walls of the canal fitting snugly around the cord has been met by the imbrication or double breasting of the walls as applied to inguinal hernia by Andrews.[4]

The attempt to secure a strong and small external ring was a part of, and in some instances the entire aim of some of the early and incomplete forms of operation. The strength of the external ring has of late been assured by the incision of Mayo.[5] which allows the preservation of the intercolumnar fibers of the external oblique.

A new internal ring is made in the majority of the operations now employed. But in an anatomic operation the original internal ring should be repaired, that is, (a) made smaller of suitable size properly to surround the cord after the removal of the sac, and of equal importance, (b) replaced to its normal position and in proper relation with the inguinal canal, and the external ring.

The internal ring may be diminished in size by suture of the transversalis fascia, either above or below the opening for the passage of the cord.

The suturing of the transversalis fascia from below upward, that is beneath the cord, was first performed in 1878 by H. O. Marcy.[6]

This detail was likewise a step in the "combination operation" reported by Ferguson[7] in 1895.

But in the "typic or anatomic operation," a description of which was published by Ferguson in 1899, all the structures are replaced to their normal anatomic relations, with the single exception of the internal ring, which is depressed because of the advice that the internal ring be strengthened, "with a few stitches above the root of the cord."[8]

From inquiry and from observation I am led to believe that in many so-called Ferguson operations this detail, the minimizing of the internal ring, is often omitted, which may, in part, account for recurrence where this does occur.

When these stitches are placed above the cord, only one of the essentials for the repair of the ring is fulfilled, that is, the ring is made smaller. The lower and inner margin of the dilated ring, which is the most abnormal and displaced portion of the circumference, is used as the fixed margin; while the upper, the normal superior boundary, is brought together and displaced downward. In this way the ring while being made smaller is at the same time depressed (Figs. 5 and 6). So it would seem that diminution in the size of the internal ring by suture of the transversalis fascia above the cord does not constitute proper repair. While mere diminution in caliber is an important step in operation, the results would be still better if the ring were elevated to its normal position and relation at the same time that it is made smaller. And this is accomplished by placing the stitches beneath the cord, which pleat and reinforce the abnormally dilated and attenuated lower margin, while the superior margin, that portion of the ring that has not been stretched, dilated and displaced by the protrusion of the sac, is not interfered with but is used as the fixed margin.

The necessary stitches in the transversalis fascia, preferably of the mattress type, may be inserted and tied, in such a manner that the cord is not extensively separated from its attachments, and the knots may be placed to one side so that they will not irritate the cord.[9] As a result the upper margins of a repaired ring and a normal ring are in the same relative position, which is at the proper distance above and external to the outlet of the canal.

This apparently trivial difference in the manner of repairing the internal ring will, with a study of the subject, be found to be of the utmost importance regarding the length and obliquity of the resulting inguinal canal.

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* Read at the Western Surgical and Gynecological Association, Dec. 29, 1908.

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in giving water before the bath and milk afterward, should occupy about twelve minutes. If the patient complains of chilliness following the bath he may have a hot-water bottle and some extra cover for fifteen or twenty minutes, and if the chilliness is not relieved in this time it is best to raise the temperature of the water used in the bath.

These baths should be continued in this manner and time until the patient seems on the point of achieving his immunity, as evidenced by a marked fall in temperature, an ability to take solid food, the occurrence of a formed fecal movement, a normal tongue, etc. Then they should be given every three hours, and after the temperature has been normal in the evening for two or three days they may be discontinued, unless the disease should later show signs of recrudescence, when they should promptly be again instituted.

CONTRAINDICATIONS

The only contraindication I have recognized is the occurrence of severe intestinal hemorrhage. The baths should then be stopped for a few hours, until it appears that the hemorrhage is controlled, when they should be resumed. The temperature of the bath for a robust adult should be about 60 F., and for most women and all children from 20 to 30 degrees higher. When the reaction is delayed more than ten minutes it is too cold and the temperature should be raised.

ADVANTAGES OF THIS SYSTEM OF BATHING

The baths are as practicable in the humblest home and as readily given there as in the best appointed hospital. They do not require the ministrations of a trained nurse. Any fairly intelligent woman can learn the method in fifteen minutes, and a little criticism on the part of the attending physician will render her work perfect in the first few days of the case. This contrasts strongly with the Brand system, the appointments for which were scarcely obtainable outside of a hospital. And really less than 0.5 per cent. of patients ever received this treatment on account of lack of facilities.

PURPOSE AND EFFECT OF THESE BATHS

These baths have little or no effect on the temperature, but there is every clinical evidence that they do eliminate the typhoid toxins. A patient who receives these baths regularly from the time of diagnosis will not develop troublesome diarrhea, delirium and insomnia. I always leave orders that the patient must have his bath on time, even if it is necessary to wake him, because I am certain that he will have no trouble subsequently in getting all the sleep he needs. I believe the elimination of toxins takes place through the skin.

These baths shorten the period of immunization to three weeks or less in the great majority of cases, but do not, in my opinion, lessen the tendency to loss of immunity or what is generally termed a relapse. If this occurs the baths should be promptly resumed, and the relapse usually runs an exceedingly short and mild course.

MEDICINE AND DIET

The only drug administered is copper arsenite, 1/100 gr., dissolved in half a glass of water and taken four times a day, for the purpose of precipitating the toxin in the intestinal canal. Alcohol should not be given, either as a food or as a medicine, as it interferes with the physiologic activity of the phagocyte, the most important factor in the immunization process.

By lessening toxemia this method tends to prevent hemorrhage, and if perforation occurs the patient is in better condition to stand an operation than under customary methods of treatment.

Milk, I believe, is the best food. If it disagrees I lessen the amount and cause it to be sipped slowly, or, if necessary, buttermilk is substituted. Bread and butter may be given after the second week if the patient desires solid food, but previously to that time even liquid mixtures containing starch should be avoided, as the patient is not likely to be able to digest them. The condition of the mind should be considered in regulating the diet, for a patient with a normal sensorium is much more likely to digest food than one who is in a low muttering delirium. I believe that the majority of patients are fed too much during the first week, for their power of assimilation at this time is at its lowest. Some fruit juices should be allowed, avoiding the citrus fruits, however, during the early stage of the disease.

The patient should be instructed to wash the mouth and teeth two or three times a day with a mild alkaline solution. I use a Carl Seiler tablet dissolved in half a glass of warm water.

RESULTS

Now, do results justify this method? During the period from 1898 up to the present time ninety-seven cases of typhoid have come under my care, and during the eleven years I have been using this method the mortality has been absolutely *nil*.

This experience extends over such a long period of time it must of necessity have included cases of almost every degree of virulence. And I believe that the merits of any method of treatment must be judged by a time test as extensive as this one. We all see epidemics of this infection so mild that the patients practically all recover, no matter what the treatment; while other epidemics are so virulent that the mortality is as high as 40 or 50 per cent. These facts have been borne in mind, and after eleven years' experience with the method that I have placed before you to-day I firmly believe that I am justified in making the assertion that this is the ideal treatment for typhoid fever: first, because it is founded on physiologic principles capable of demonstration; second, because it is practicable with all patients and under all circumstances; third, because results are all that could be desired.

COMPLEMENT FIXATION IN MALIGNANT DISEASE

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In a recent paper published in conjunction with Dr. W. S. Thomas,[1] I have pointed out that the blood serum of cancer patients may contain a substance or substances which, in the presence of cancer extract, will bind a larger amount of complement than the blood serum of normal individuals. It was found that this reaction could be obtained in about 65 per cent. of the cancer cases, while it was absent in 98 per cent. of our non-cancerous patients and in all normal persons. The small number of positive results in non-malignant cases finds its probable explanation in the fact that cancer antigen may react with the blood serum of syphilitic individuals and thus likewise bring about an abnormal degree of complement fixation. Our paper was sent to the *Journal of Experimental Medicine* early in May, and we were hence unable to notice certain papers bearing on the same subject which appeared in the *Wiener klinische Wochenschrift* about the same time and since then. Elias, Neubauer, Porges and Salomon[2] report that they found complement fixation "relatively frequently" in cases of tumor, and they are strongly inclined to attribute their positive reactions (which were obtained with an alcoholic heart extract as antigen), not to antecedent syphilis, or the advanced age of most of the cases, but to the malignant disease *per se*. They speak specifically of one case, that of a girl 15 years old, a "virgo intacta" with *positive, though slight, complement fixation*, in whom there was no basis whatever for *presupposing* a syphilitic infection, either acquired or *hereditary*. The condition was an ovarian sarcoma with metastases to the peritoneum, the pleura and the mediastinum.

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[1] Simon, C. E., and Thomas, W. S.: Complement Fixation in Malignant Disease, Jour. Exper. Med., 1908, x, No. 5, p. 673.

Weil and Braun[3] obtained marked reactions in 4 tumor cases out of 14, viz.: in 1 case of carcinoma of *the liver, following cancer of the stomach*; in a case of general carcinomatosis and 1 of sarcomatosis, in both of which the fixation was obtained with the pleural exudate, sc. transudate; and in 1 case of cancer of the breast with extensive metastases. Weil and Braun emphasize that there was not the least reason for assuming a syphilitic infection in these four cases; that they were all severe cases: that the milder ones did not give the reaction, *and that it would be unreasonable to conclude* that only the severely affected patients should have had syphilis in the past, while the slightly affected ones had been free from the disease. Like the preceding investigators, Weil and Braun also used alcoholic heart extracts as antigen.

Besides these, Gross and Volk[4] mention two cases of non-syphilitic tumor patients in whom a very marked reaction was obtained, and Salomon[5] *reports briefly* from von Noorden's clinic that complement fixation was frequently observed in older people with carcinoma in whom no indications existed of past syphilitic infection.

Other data bearing on the question at issue have, so far as I know, not been published.

During the past three months Dr. Thomas and I have continued our own investigations and we now have data bearing on 59 cases of cancer. In our first series fixation was noted in 65 per cent. of the cases and in our second series in only 50 per cent. This discrepancy we are inclined to refer to the fact that we *were obliged* to use a tumor extract as antigen which was several months old and had not been kept on ice during that time. A relatively fresh medullary cancer was not available during the fall months, and for obvious reasons we did not wish to use any other than cancer antigen in our research. As we have pointed out before, much depends on the character of the antigen. In our work we have only used breast-cancer antigen, and we have found that quantitatively good results can be obtained only with very cellular growths. Whether or not complement fixation can be obtained in a higher percentage of cases than what we found in our first series, future investigations will show.

So far as the occurrence of the reaction in non-cancerous cases is concerned, our studies have led to the *conclusion that, except in syphilis, it is rare*, and in the few cases in which it did occur we can not exclude syphilis altogether. The substitution of the usual antigens which are used in syphilitic work does not help us to solve the question, for we now know that cancer antigen may react with syphilitic sera, and that "syphilitic" antigen may react with cancer serum. This fact, of course, lessens the diagnostic value of complement *fixation in malignant disease. At the same time it overthrows the usually accepted idea of the specificity of the* reaction so far as syphilis is concerned. To what extent this will interfere with the diagnostic significance of the fixation reaction in syphilis will depend, to a considerable extent, on the individual case. In many instances —indeed, in most—its importance will remain unimpaired; in cases, however, in which we are dealing with tumors *each case will have to be judged by itself*. Generally speaking, *absolute* fixation may be regarded as pointing toward syphilis, while it is usually only partial in cancer; it may, however, also be complete. The Porges lecithin reaction unfortunately does not help us either to differentiate the cancer from the syphilis cases. For, while certain observations (such as the solubility in ether of the substance or substances present in syphilitic sera, *which is responsible for the precipitation of lecithin*, in contradistinction to the "fixing" substance) suggest that the Porges and the Wassermann reaction may not be referable to the same substance,[6] the fact remains that, so far as syphilis is concerned, the two furnish practically the same results, and it is especially noteworthy that the lecithin reaction also is quite commonly obtained by Stumme,[7] who found a positive *lecithin reaction in 8 cases of malignant disease out of 10*, and a doubtful one in the 2 remaining instances. No difference in this respect was noted between carcinoma and sarcoma and between ulcerating and non ulcerating growths. Shortly afterward Weil and Braun published an account of 17 cases of cancer, in 8 of which the reaction was strongly positive and in 1 doubtful. They remark that their lower percentage of positive findings may have been owing to the fact that in some of the negative cases they were obliged to use smaller quantities of serum than Stumme had advocated. Their positive list includes both sarcomas and carcinomas.

To recapitulate, then, it may be said that both complement fixation and lecithin precipitation may be obtained in malignant disease and that under certain conditions both reactions may have a diagnostic significance. Further research will be necessary to establish the relative frequency of the reactions in the diseases in question and, above all, to determine whether the quantitative differences which seem to exist in cancer as compared with syphilis are such that diagnostic inferences are justifiable in the differential diagnosis between the two conditions.

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2. Elias, H., Neubauer, E., Porges, O., and Salomon, H.: Ueber die Specifizität d. Wassermannschen Syphilisreaktion, Wien. klin. Wchnschr., 1908, xxi, No. 18, p. 652

3. Weil, E., and Braun, H.: Ueber positive Wassermann-Neisser A.-Brucksche Reaktion bei nichtluetischen Erkrankungen, Wien. klin. Wchnschr., 1908, xxi, No. 26, p. 938.

4. Gross, S., and Volk, R.: Weitere serodiagnostische Untersuchungen bei Syphilis, Wien. klin. Wchnschr., 1908, xxi, No. 44, p. 1522.

5. Salomon: Protok. d. k. k. Gesellsch. d. Aerzte in Wien, Wien. klin. Wchnschr., 1908, xxi, No. 11, p. 377.

6. Pick, E. P., and Pribram, E.: Beiträge zur Kenntniss aetherempfindlicher Substanzen des Blutserums und ihr Einfluss auf einige Immunitätsreaktionen, Biochem. Ztschr., 1908, xi, Nos. 5-6, 418

7. Stumme: Protok. d. k. k. Gesellsch. d. Aerzte in Wien, Wien. klin. Wchnschr., 1908, xxi, No. 11, p. 377.

In conclusion, I would emphasize that a very considerable amount of experience is necessary, and more especially in the partial reactions of cancer, with the technic involved in the fixation reactions, and that conclusions should be attempted only by investigators who are thoroughly familiar with the subject. There are many pitfalls which are trying even to experienced workers.

Note.—In Progressive Medicine, December, 1908, Dr. Bloodgood, referring to the question of the possibility of hemolysis in blood transfusion, remarks that I recommend the examination of the recipient's serum against the donor's corpuscles, while according to Crile hemolysis between the donor's corpuscles and the patient's serum *will do little* harm, whereas the reverse hemolysis strictly contraindicates transfusion; that two tests should accordingly be made, of which the most important one is just the reverse of the one ascribed to me. This statement, so far as my attitude is concerned, rests on a misunderstanding on the part of Dr. Bloodgood. If the blood test is made at all then it should be made on both sides, viz.: both the donor's and the recipient's serum should be tested against the recipient's and the donor's corpuscles respectively. The concentrated serum, moreover, should be used, and not the diluted serum, as is erroneously stated in Bloodgood's article.

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SOME FACTS ABOUT THE ARMY MEDICAL CORPS

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As the young physician nears the end of his hospital service as interne, the matter of a career occupies much of his attention, and his uncertainty and hesitancy in making definite plans for the future lessen that confidence with which he received his diploma. It is this young man to whom I address this paper. If he is of good character, physically fit, and possesses good professional attainments what I have to say will point out to him a definite career which offers a good living, high social and professional standing and opportunities to improve himself in the broadest sense. I speak of the Medical Corps of the United States Army.

The Army Medical Corps is composed of commissioned officers grading in rank from first lieutenant to brigadier-general, who as such have all the rights and privileges to which their rank entitles them, equal to those of officers of like grade in the line of the army and other staff corps.

Generally speaking, the emoluments consist of (1) a definite pay schedule fixed equally for all officers of the army according to rank; (2) foreign service pay; (3) longevity pay; (4) mounted pay; (5) travel pay when traveling under orders; (6) allowance of quarters, fuel and light; (7) leave of absence on full pay; (8) promotion; (9) retirement for age, and (10) retirement for physical disability contracted in line of duty and incident to the military service. The pay schedule and allowances, etc., for officers can be obtained by making suitable application to the War Department.[1] The pay is enough for any officer to live on if he is moderate in his tastes and careful in his personal financial affairs.

I wish to speak more particularly, however, of the inducements to enter the medical corps other than those pecuniary, because it is difficult for any one to arrive at a definite idea of the workings of the corps until he has served in it. My remarks, therefore, have to do more with the medical officer's duties than with what he receives from the government for doing them, and I shall speak of the attractions of the service for the medical man and his opportunities for travel, study and improvement in every way professional.

Entrance to the army medical corps is secured only by examination and no appointments are made without this preliminary. Full information how to proceed in this matter and the requirements for entrance are set forth in a circular which may be obtained by making direct application to the Surgeon-General, U. S. Army, Washington, D. C.[2]

After the candidate has successfully passed his preliminary examination he is ordered to the Army Medical School, Washington, D. C., for a course of instruction lasting eight months. The purpose of this school is to train in such subjects as are peculiarly appropriate to the duties which a medical officer of the army is ordinarily called on to perform. The course is eminently a practical one, and, since the duties of the military surgeon differ widely in many respects from those of his confrère in civil life, the value of this instruction at the beginning of the medical officer's career is obvious. The Army Medical School is situated in the same building with the Army Medical Museum and the library of the Surgeon-General of the Army, which is the most complete medical library in the world. Student officers have free access to both museum and library. The course at the school embraces the following subjects:

1. Duties of Medical Officers, Medical Department Administration and Customs of the Service.—Army hospital administration must necessarily be uniform and definite in its workings. All medical department affairs are taught in this course.

2. Military Hygiene.—Including ordinary and personal hygiene; study of food, drink, habits, heat and cold in relation to health, clothing, water supply, disposal of wastes, heating, lighting, ventilation, sewer systems and sanitary plumbing; camps, permanent buildings, etc.

3. Clinical Microscopy.—Including bacteriology, parasitology and helminthology, especially in relation to tropical and epidemic diseases; methods of immunization, opsonins, etc.

4. Military Surgery.—Imperative surgery, gunshot wounds and injuries commonly encountered in the military service in peace and war; clinical course at Army General Hospital.

5. Tropical Medicine.—Including a study of all diseases met in our own tropical possessions and those of the colonial possessions of other nations; epidemic diseases and methods of control and those due to intestinal parasites and blood-inhabiting protozoa.

6. Sanitary Chemistry.—Qualitative and quantitative analysis of water, air, foodstuffs, impurities, adulterations, etc.

7. Hospital Corps Drill.—Including duties of litter bearers, use of ambulances and other methods of collecting sick and wounded, and first aid.

8. Operative Surgery.—Operations on the cadaver—a very practical course.

9. Ophthalmology and *Optometry.—A practical clinical* course.

10. Military Medicine.—History of medicine: evolution of medical science as applied to armies; study of diseases pecu-

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[1] The following annual salaries, in divided monthly payments, are increased by 10 per cent. for each period of five years' service until a maximum *of 40 per cent. is reached*: An assistant surgeon, with the rank of first lieutenant, mounted, receives $2,000 per annum, or $166.67 monthly. At the end of five years he is promoted to the rank of captain, which, with the increase of 10 per cent. for five years' service, is $2,640, or $220 a month. After ten years' service the pay would be $2,880 annually, or $240 a month. The pay attached to the rank of major is $3,000 a year, which, with 10 per cent. added *for each five years'* service, becomes $3,600 after ten years' service, $3,900 after fifteen years, and $4,000 after twenty years. The monthly pay of lieutenant colonel, colonel and brigadier-general is $375, $416.67, and $500 respectively.

[2] Information in regard to entrance to both the army and the navy medical services was given in The Journal A. M. A., Oct. 19, 1907, xlix, 1386.

liar to camps, garrisons, moving commands, and preventive medicine in general.

11. X-RAY WORK.—Practical course. All students are required to operate the machine and take pictures. Discussions of therapeutic uses of the *x*-ray and radium.

12. EQUITATION.—A course in riding and use of the military horse equipments.

After this course, those who qualify and are found proficient are commissioned as officers of the regular establishment and are ordered on a two-year tour of duty in the Philippines or some other of our foreign possessions, where application is made of the training received at the school. The medical officer will serve with troops in garrison and in the field and will see at first hand those pathologic conditions peculiar to the place in which he may be serving. He may have opportunity to study the epidemiology of malaria, typhoid, cholera, plague or dysentery, and make practical application of sanitary methods and preventive medicine.

At the end of his foreign tour of duty there is opportunity to take leave of absence to visit foreign countries for study or pleasure; or the medical officer may allow his leave of absence to accumulate until he is entitled to four months, which will allow him time for postgraduate study at home or abroad. At all events, he will return to the United States for duty after his foreign tour with experience in his work and those broadening influences which travel and residence in foreign countries impose on every man.

A medical officer's duties in the United States may take him to a post or station situated in any part of the country. As a general rule the duties are the same at all garrisons. A quotation from the "Manual for the Medical Department of the Army" gives a general idea of what is required of the medical officer:

> The medical department is charged with the duty of investigating the sanitary condition of the army and making recommendations in reference thereto, of advising with reference to the location of permanent camps and posts, the adoption of systems of water supply and purification, and the disposal of wastes, with the duty of caring for the sick and wounded, making physical examinations of officers and enlisted men, the management and control of military hospitals, the recruitment, instruction and control of the Hospital Corps and of the Army Nurse Corps (female), and furnishing all medical and hospital supplies, except for public animals.
>
> The surgeon, under the direction of the commanding officer, will supervise the hygiene of the post or command, and recommend such measures as he may deem necessary to prevent or diminish disease. He will examine, at least once a month, and note in the medical history of the post, the sanitary condition of all public buildings, the drainage, the sewerage, amount and quality of the water supply, the clothing and habits of the men, and the character and cooking of the food, and immediately after such examination will report thereon in writing to the commanding officer, with such recommendations as he may deem proper.

Each permanent post has a hospital commensurate in capacity and personnel of the hospital corps with the strength of the command. Military hospitals are equipped with all appliances and scientific instruments for the proper care of the sick, for physical examination and the identification system adopted by the War Department. There is also in each post hospital a good working and reference library; all the best current medical literature is regularly supplied by the medical department. At posts the medical officer is always examiner of recruits and in charge of the identification records mentioned above, which consist of a finger-print and photograph system applied to soldiers on enlistment and also to military convicts.

The Surgeon-General's office may consider an officer's special qualifications and aptitudes when assigning him to a station, so that he may be sent to any one of the following general hospitals which are operated and controlled by the medical department: General Hospital, Washington, D. C.; General Hospital, Presidio, San Francisco, Cal.; Army and Navy General Hospital, Hot Springs, Ark., where hydrotherapy is used in those conditions to which it is particularly applicable, and the General Hospital, Fort Bayard, N. M., which is the army sanitarium for the treatment of tuberculosis. In addition to this, there are four schools for instruction of the hospital corps, which are organized into companies, under command of medical officers.

I wish to impress the medical man with the fact that there are opportunities in the army for a man to reach more than a distinguished standing in the medical profession. Mention need only be made of the work in Cuba of the Yellow Fever Commission, the triumph of sanitation which makes the building of the Panama Canal possible, and the work of the Board for the Study of Tropical Diseases in Manila. Medical officers have contributed largely to the text-books on medicine, surgery, hygiene and tropical medicine. In mentioning these things I point out that, although the workings of the medical department must necessarily be a routine system, yet the individual officer will find his life full of various interests and a variety of work which few experience in civil life.

I speak briefly of surgery in the army, since so many young men are attracted by a possible surgical career and have ambition to succeed in this line.

There is ample opportunity to learn and practice surgery in the army. Although the class of cases is more restricted than in civil life, since the army is made up of healthy men and the incidence of disease is low, yet there are many cases of injury and many imperative surgical cases. During my service of about twelve months as operating surgeon at one of the larger army posts in this country there were 28 major operations performed there. This list includes 12 appendicectomies, 2 appendicostomies for chronic amebic dysentery, 4 operations for the radical cure of hernia, 1 suprapubic cystotomy, 1 nephrotomy, 1 craniotomy, 1 enterorrhaphy for gunshot wound, and other operations in the line of general surgery.

In addition to these general cases, the venereal service contributed a large list of minor surgical operations.

MILD ATYPICAL TYPHOID FEVER; RESULT WITH BLOOD CULTURES *

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It is my purpose to make a brief review of sixty-eight cases of typhoid fever and the findings, by blood cultures, with special reference to the mild atypical forms. The study of these fevers, and the results obtained through blood cultures, is of great practical import. It clears them from the haze of doubt and places them at once where they properly belong. Many observers—

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* Read before the Nashville Academy of Medicine and Davidson County Medical Society, Jan. 5, 1909.

Osler,[1] Dock, Vaughan[2] and others — have believed for a long time that these indefinite fevers would ultimately prove to be typhoid infections, and a great deal of clinical evidence has been brought forward in support of this belief, but it has not been sufficiently definite to satisfy all.

In 1908 I had published an article[3] in which I had studied clinically 200 cases of typhoid, with the idea of clearing up these indefinite forms. I gave in that paper evidence sufficient to convince any one who would approach the subject in a receptive state of mind, but I realized at the time it was yet open to argument. I said in that paper, among other things, the following:

> There is a class of continued fevers met with in the southern portion of the United States and in Panama, and no doubt in many other portions of the world, that are resistant to quinin; they are too long in their course to be malaria fever. They are too mild in their symptoms and too short in their course to meet the clinical requirements commonly expected of typhoid fever. . . .
>
> I am fully convinced that these fevers are typhoid fever, because their numbers always increase as the number of typical typhoid fevers increase. They occur in the same houses and same surroundings from which we meet or receive the typical cases; they frequently relapse, and the relapse may be, and often is, more severe than the initial attack. . . .

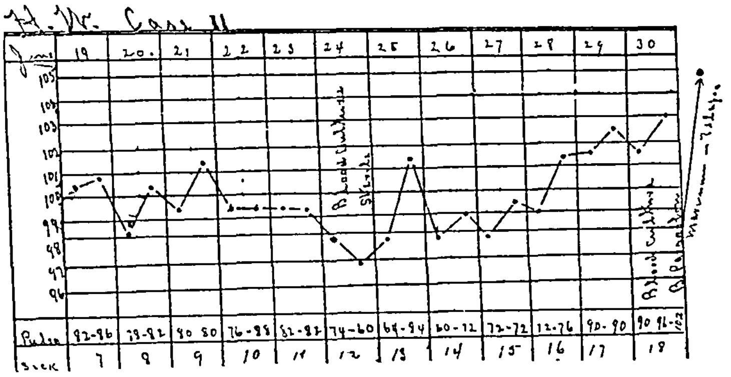

Chart 1.—Temperature in Case 2 (H. W.). Mild initial attack. Relapse of exacerbation, lasting 21 days.

> In these irregular cases every opportunity is present for the spread of the disease. They are usually unrecognized as typhoid fever, and no effort is made toward disinfecting the patient's excreta; they are not reported to the sanitarian, and nothing is done toward general sanitation about the patient's surroundings. Contamination occurs, and there is then but one result—an epidemic. Thus these cases become the root from which this disease springs perennial, and are almost solely responsible for its continuance. . . .
>
> Typhoid fever is a preventable disease, and should in time, like typhus fever, become extinct. This can never be until physicians widen their conception of what constitutes typhoid fever, and instead of always expecting the typical, diagnose and treat, from a sanitary point of view, all continued fevers as typhoid fever, until they are proved to be something else.

Everything claimed in the above has been fully borne out by the subsequent records with blood cultures, and it is extremely gratifying to me to find those claims so abundantly proved by this later and more definite work. This paper is largely a supplement to my original article, and I shall show in what follows my reason for the conclusions arrived at.

ANALYSIS OF REPORTED CASES

I shall now analyze the sixty-eight cases and give a few case reports, with their charts, to show exactly the class of fevers I have in mind. The patients in this blood-culture work were negroes, and only one culture was made in each case.

The method of making these cultures was to aspirate from a vein in the forearm from 3 to 10 c.c. of blood, discharging this blood in an ox-bile medium. This was incubated, then plated, and the plated colonies worked out in the usual bacteriologic methods for identification and differentiation.

A number of comparative cultures were made on well-determined diseases, such as pneumonia, nephritis with elevated temperature, tuberculosis, and malaria; also on clinically obscure conditions. No cultures were returned positive under any circumstances except those with well-marked symptoms of typhoid fever, or the class of cases here under consideration.

In the 68 cases:
- Positive blood cultures were obtained in 37, or 54.41 per cent.
- Sterile blood cultures were obtained in 31, or 45.59 per cent.
- Severe or typical forms were displayed in 67.64 per cent.
- Mild or atypical forms were displayed in 32.36 per cent.

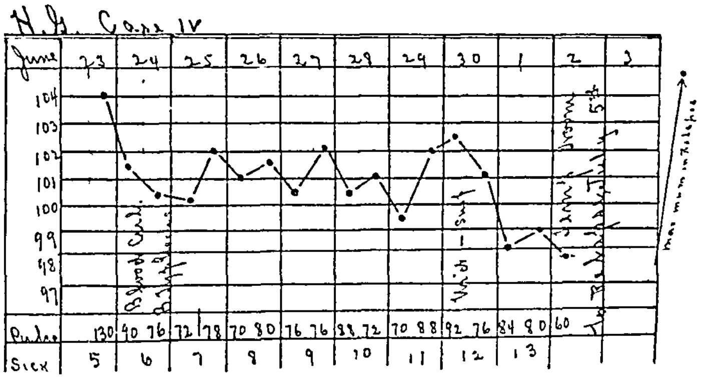

Chart 2.—Temperature in Case 4 (H. G.). Moderately severe, with malaria-like curve of temperature and relapse on twelfth day.

Of the positive cultures:
- The findings showed *B. typhosus* in 31.
- The findings showed *B. paracolon* in 6.
- Severe cases yielded 28, or 75.14 per cent.
- Mild cases yielded 9, or 24.86 per cent.

Widal tests:
- Positive cultures yielded Widal + in 46.87 per cent.; Widal — susp., in 15.62 per cent.; Widal — in 37.50 per cent.
- No test made in five cases.
- Sterile cultures yielded Widal + in 41.37 per cent.; Widal — susp. in 34.48 per cent.; Widal — in 24.133 per cent.
- No test made in two cases.

All the patients who died gave positive *B. typhosus* findings in antemortem blood, except one, who gave sterile culture and died of perforation a few days after culture blood was taken.

Complications:
- Phlebitis—right leg, 4 times, left leg, once.
- Relapses, 8.
- Malaria organisms present in blood, 5 cases, or 7 per cent.

The longest course of fever (*B. typhosus*) was forty days.

The shortest course of fever (*B. typhosus*) was ten days.

The longest course of fever (*B. paracolon*) was twenty-eight days.

The shortest course of fever (*B. paracolon*) was eight days.

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[1] Practice of Medicine, Osler, Ed. 6.

[2] Vaughan, Victor C.: Conclusions Reached After a Study of Typhoid Fever Among the American Soldiers in 1898; Oration on State Medicine, The Journal A. M. A., June 9, 1900, p. 1451.

[3] Atypical Typhoid Fever; Its Part in Preventive Medicine and Its Differential Diagnosis from Estivo-autumnal Malaria, The Journal A. M. A., Feb. 22, 1908, L, 585-590.

In one relapse from *B. paracolon* fever a positive culture of *B. typhosus* was obtained.

In one relapse (initial attack sterile) a positive culture of *B. paracolon* was obtained.

In one relapse (initial attack positive *B. typhosus*) *B. typhosus* was obtained.

In three relapses, cultures were returned sterile, and in two, which were so mild, no cultures were taken.

The total number of atypical cases, positive and sterile, was 21, or 32.36 per cent.

The Widal test in the positive cultures falls considerably below the standard, being 46.87 per cent. positive and 15.62 per cent. negative suspicious; counting both numbers as positive, which I think is proper, we get a total of 62.49 per cent.

The number of tests made to each case averaged a little over five. In two cases one test only was made, each returned positive. The largest number of tests to one case (positive *B. typhosus*) was twelve, all returned negative. The dry drop method was used, and the specimens were generally sent to the laboratory every third day.

In all the cases included as atypical the patients had fever less than fifteen days and were practically without symptoms which ordinarily characterize typhoid fever. The sterile cases included in the atypicals were diagnosed on positive Widals, or on two or more negative suspicious Widals, or such complications as phlebitis and relapse. All patients, no matter how mild the case, were kept in the wards under observation for fourteen days after the temperature became normal, and most of them were kept twenty-one days or over.

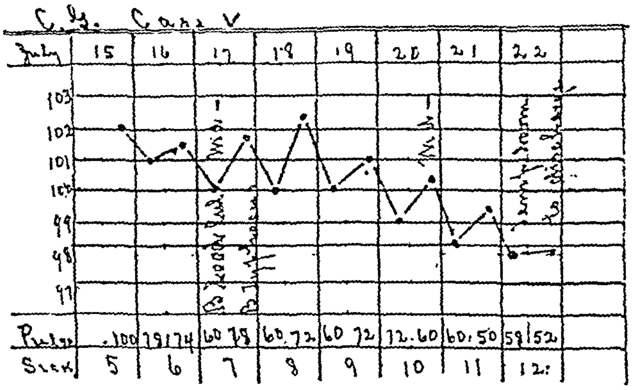

Chart 3.—Temperature in Case 5 (C. G.). Mild *B. typhosus* infection.

The analysis then shows 32+ per cent. atypical; or, if there is any doubt of the diagnosis of the sterile cases, let us take only the thirty-seven positive cases. In this instance we shall still find the proportion to be 24 per cent. atypical.

Inasmuch as we are unable to get positive cultures in all of even the most severe cases — for instance, the sterile case with perforation and pathologic diagnosis of typhoid fever,[4] we must feel some surprise that we get such proportion of positive cultures in these atypical cases as 9 to 12.

Reviewing this analysis, the conclusions reached are: that 60 per cent. of positive cultures will be the rule in average work, with one culture to each case; that the general average of atypical cases in typhoid fever is surprisingly high, and they demand more attention in the teaching of this disease than is usually given them; that the expected results in average work from Widal's test—as given in standard text-books, 95 per cent.—is too high; and that while the laboratory is our only means of clearing absolutely these indefinite fevers, we can depend, and must depend, largely on clinical findings, and on analogy, for the diagnosis in typhoid fever.

REPORT OF CASES

CASE 1.—J. W., aged 34, from Barbadoes, was ill three days before admission. Complaint—fever, headache, cough, chills and vomiting. Physical examination, negative, except for some bronchitis. Tongue broad, flabby, with toothprints. Blood examination, negative for malaria parasites. Stool, negative; *urine, negative. Blood culture made third day after admission*; positive *B. typhosus.* Widal seventh day after admission, positive; eighth day, positive; tenth day, negative suspicious; thirteenth day, negative suspicious; fourteenth day, negative.

CASE 2 (Chart 1).—H. W., aged 23, from Barbadoes. Sick four days before admission. Complaint, sore throat. Examination, slight redness of pharynx, tongue coated, otherwise negative. Blood negative for malaria parasites. Leucocytes, 7,500. Old *facial* paralysis, right side. *Blood* culture, eighth day after admission, sterile. Relapse, blood culture, positive, *B. paracolon.* In relapse the fever continued for seventeen days. This illustrates a mild attack with a severe relapse.

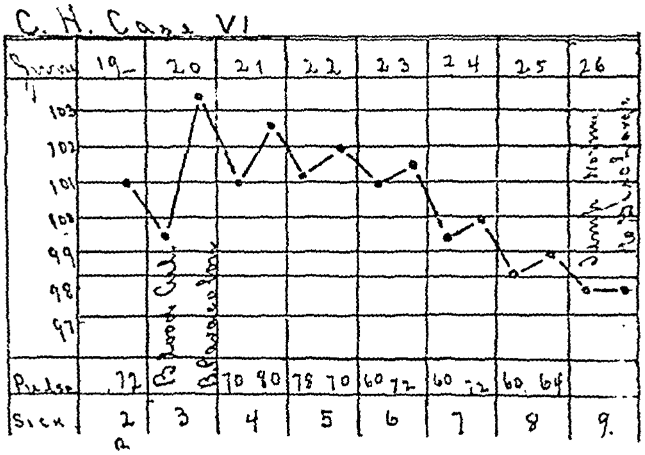

Chart 4.—Temperature in Case 6 (C. H.). Mild *B. paracolon* infection.

CASE 3.—A. F., aged 25, from Barbadoes. Sick four days before admission. Complaint, headache, fever and dysentery. Physical examination: lungs, sibilant and crackling râles, middle and lower lobes of right. Sibilant râles over left; spleen, palpable and tender; abdomen, tender over upper part. Tongue coated; other organs negative. Stool, negative; urine, trace of albumin and hyaline casts. Blood negative for malaria parasites. Blood culture second day after admission, positive, *B. paracolon.* Blood culture eighth day after admission, sterile. One Widal test, negative.

CASE 4 (Chart 2).—H. G., aged 23, from Barbadoes. Sick four days before admission. Complaint, headache, *fever* and constipation. Physical examination: soft, *fine* râles *at* the base of right lung; spleen, palpable; other organs *negative,* stool negative. Urine, slight trace of albumin, hyaline and granular casts. Blood negative for malaria; leucocytes, 7,800. Sputum, negative for tubercle bacilli. Blood culture day *after* admission, positive, *B. typhosus.*

CASE 5 (Chart 3).—C. G., aged 20, from Barbadoes. Sick four days after admission. Complaint, headache, fever and no appetite. Physical examination: negative, except spleen, slightly palpable; tongue, coated. Urine, negative. Stools, few degenerated epithelial cells. Blood negative for malaria parasites. Blood culture third day after admission, *positive, B. typhosus.* Three Widal tests, negative.

CASE 6 (Chart 4.)—C. H., aged 20, from Barbadoes. Sick one day before admission. Complaint, languor and loss of appetite. Physical examination, negative. Urine, trace of albumin. Stools, negative. Blood negative for malaria parasites. Blood culture fourth day after admission, positive, *B. paracolon.*

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[4] Records Pathologic Laboratory, Ancon Hospital, 1908.

DEDUCTIONS

The question will arise (this work having been done in Panama) whether such cases are present in the United States. In proof that they do occur in the United States, I cite H. F. Harris'[5] work at Atlanta, Ga., along the same line, in which he takes forty-five cases, the fever being one week and over, and in blood culture work finds 73.3 per cent. positive.

The question will also arise of the effects of malarial infection as a complication in typhoid fever. So far as I have seen, this complication amounts to nothing, except perhaps in the final prognosis. In the mild cases the malarial type of fever may predominate till eliminated by quinin, then runs its course as usual. In the severe cases the malarial type of fever is submerged, and quinin may be given without in any way modifying the symptoms or temperature curve. One patient—not under my observation—who had a very severe malarial infection on admission, was given 320 grains of quinin by hypodermic injections, without any effect whatsoever on the temperature or the symptoms. The patient died on the fifth or sixth day after admission, and at autopsy no malarial organisms were found in the internal organs, though malarial pigmentation of the bone marrow and spleen was present. The lesions found and cultures made from the splenic blood were positive for typhoid fever.[6]

The study of these cases will show at once what these indefinite fevers really are.

The cycle of evidence is now complete. Here are the bacteriologic findings; here are the records of cases and their clinical course, and the pathologic findings in the nine cases of death close the cycle and make it complete.

This work, too, ought to throw some light on malarial fever, that class of malarial fevers which is said to take on symptoms of typhoid fever—a theory universally accepted.

A review of these cases and charts will show that, instead of malaria simulating typhoid, exactly the reverse is true; it is mild typhoid fever in its febrile course that simulates severe malaria. The difficulty in the differentiation of these two diseases has been in the lack of facilities to make a positive distinction; and the fact that occasionally malarial parasites were found in the blood in these fevers has added to the confusion. With this last fact confronting us, and no other positive knowledge to get us out of the difficulty, we quietly placed the burden, along with other unknown things in medicine, on our favorite "pack-horse"—malarial fever—and so let it rest.

The lesson to be gained here then is that when we are confronted with a condition having typhoid symptoms, even though malarial parasites are present, the condition is typhoid fever, and always has been typhoid fever.

DIAGNOSIS

The diagnosis will not be difficult if we admit the occurrence of these fevers and are watching for them. Headache and fever are always present, and with these, one or more of three other symptoms may be present, namely, enlarged spleen, slight diarrhea and some narrowing and redness of the tongue. With any or all of the above-named symptoms present, and with no sufficient findings to account for them, we may suspect typhoid fever. Therefore, a diagnosis must be made by exclusion. When we are in doubt about malaria, quinin should always be given, and given in solution. If such a mild fever be caused by malarial infection, it will yield in forty-eight hours under quinin. If this fails, something else should be looked for.

PRACTICAL IMPORT

These fevers are not without importance to the patient. If the patient is allowed to be up and about, as he will certainly wish to be, this fever may continue for three or more weeks. But if he is put to bed, with rest, and on as rigid diet as we prescribe in the severe cases, the fever will subside in two weeks or less. Moreover, there is always a liability to a relapse that may be severe.

As we have seen that the proportion of these cases is not less than 25 per cent. and may be over 30 per cent., it is obvious what an important part they play in the spread of typhoid fever. Their chief importance, then, is from the viewpoint of sanitation, and they demand an early diagnosis, and just as rigid effort for complete cleanliness and care from the physician and sanitary authorities as the most severe cases. Just as widespread and just as severe an epidemic may spread from a mild case as from a severe one. This is well known from the general law of infectious diseases.

This percentage of cases, or even one-half of this percentage, constantly overlooked and diagnosed as malaria, or what not, will make it impossible ever to get rid of typhoid fever; focus after focus, from no one can tell where, will be formed to plague us, and it is no exaggeration to say that these cases are the root from which this disease springs perennial.

Note.—I am indebted for this blood culture and Widal work to the enthusiastic support and to the painstaking endeavors of Dr. Samuel T. Darling, Chief of Laboratory of the Bureau of Health and Pathology, Ancon; Dr. Thomas R. Brown, Bacteriologist, Ancon Hospital; to Lieut.-Col. John L. Phillips, Medical Corps, U. S. A., Superintendent of Ancon Hospital, for permission to publish this report, and to several of the nurses for copying charts, etc.

501 Wilcox Building.

A STUDY OF THE ACTION OF SCOPOLAMIN-MORPHIN ON THE HEART, LIVER AND KIDNEYS

REPORT OF SIX HUNDRED AND FIFTY CASES OF SCOPOLAMIN-MORPHIN ADMINISTRATIONS PRELIMINARY TO GENERAL ANESTHESIA

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Scopolamin was discovered by Schmidt in Warbury in 1820 and at that time was obtained from a plant called scopola, named by Scopoli, the Austrian naturalist.

Scopolamin hydrobromid is an alkaloid now obtained from roots of various plants of solanaceæ (nightshade family), and is identical, chemically and physiologically, with hyoscin. This family includes scopola, belladonna, stramonium, hyoscyamus, etc.

When injected alone, scopolamin does not cause anesthesia, but in combination with morphin (in sufficient dose) it produces an anesthetic state.

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[5] H. F. Harris. Slow Fever, The Journal A. M. A., Aug. 3, 1907, xlix, 406.

[6] Records Pathologic Laboratory, Ancon Hospital, 1907.

The claim has been made that scopolamin loses its power if kept in solution, and this change in solutions of scopolamin a week old I have noted. But scopolamin in tablet form I have found reliable and see no advantage in using the crystals. For an injection as a preliminary to ether anesthesia I have used the tablets of scopolamin and morphin and these same tablets for animal experimentations.

PURPOSE OF USE

The object of the use of scopolamin and morphin in patients was first to produce complete anesthesia alone; then in case of failure, as sometimes occurs, it was necessary to use only a slight amount of chloroform or ether to complete the anesthesia. The purpose has been later to use it as a preliminary injection to ether or chloroform enesthesia, in order not only to decrease the amount of ether or of chloroform used, but also to prevent the distressing symptoms which so ofter follow anestheisa.

DEATHS ASCRIBED TO SCOPOLAMIN

A number of deaths have been reported after operation in which scopolamin and morphin have been injected previous to the administration of the anesthetic. I have separated them into (a) those in which a postmortem examination was made, and (b) those without autopsy findings.

DEATHS WITH AUTOPSY

Dirk[1] reported three cases, two cases of carcinoma of the colon and one of carcinoma of the rectum. The first two cases showed purulent peritonitis at autopsy. The third patient was in bad condition surgically, and the autopsy showed extensive metastases.

In these cases death took place several hours after operation and could not have been caused by the administration of scopolamin.

Blos von Bruns[2] describes a case of tuberculosis and emphysema. The patient was fifty years of age and autopsy showed extensive lesions of tuberculosis and amyloid degeneration of the viscera. He could not say that scopolamin had anything to do with the death of the patient.

Bokes[3] reports three cases of death following the use of scopolamin. In only one case was an autopsy performed. This was an old osteomyelitis of the femur in which there had been great hemorrhage. He characterizes it as a desperate case and did not believe that scopolamin injections had anything to do with death.

Sexton[4] had a patient with uterine fibroid who had had extensive hemorrhages. The autopsy was superficial and showed nothing.

Isreal[5] reports three cases in two of which an autopsy was performed. The first was a case of tuberculosis of the kidneys; autopsy showed fatty degeneration of the heart and liver, and cloudy swelling of the remaining kidney. The second was a case of ruptured pyosalpinx; autopsy revealed extreme fatty degeneration of the liver, heart and kidneys. The spleen was not enlarged.

In the consideration of these cases there is not a single instance in which death can be attributed to scopolamin. They are all desperate cases. The time which elapsed before death took place after scopolamin was given is not stated in these reports. However, in many cases death occurred several days after the operation was performed.

DEATHS IN WHICH NO AUTOPSY WAS PERFORMED

Flateah[6] reports the case of a woman of 52 with polypus of the uterus. Clinically she died from edema of the lungs. No autopsy was performed.

Landen[7] operated on a patient with hemorrhoids who died a few hours later from collapse.

Bokes[3] reports two cases in which death occurred after operation. The first case was carcinoma of the uterus. The patient suffered severely from hemorrhage and shock. The second was a sarcoma of the neck in a woman of 50 years. Heart was sound, pulse good and there was no loss of blood. No autopsy could be obtained.

A. C. Wood[8] reports an operation for prostatectomy in a colored man of 94 who died after the operation.

Witzel[9] describes a case of prostatectomy in which scopolamin had been administered previous to operation, death being caused by septic infection.

Wild[10] reports a case in which untoward symptoms appeared after operation, but the patient recovered. He operated on an empyema of the antrum of Highmore and collapse with Cheyne-Stokes respiration followed.

These cases in which no autopsy was performed, death can in every instance be explained in some other way than by attributing it to the injection of scopolamin.

In this connection it is of interest to refer to the work of Bevan and Favill,[11] who described the occurrence of late poisonous effects after the administration of chloroform, manifested chiefly in a fatty degeneration of the heart, liver and kidneys. This condition may occur without the use of scopolamin.

REVIEW OF EXPERIMENTS ON ANIMALS

Very little animal experimentation has been done with scopolamin and morphin since they have been injected preceding the administration of the general anesthesia. Most of the work with this drug has been done by chemists, consequently little notice of its pathologic effects has crept into medicine.

Whitacre[12] has given dogs, cats and guinea-pigs repeated injections of scopolamin and morphin, and in a preliminary report states that it produces fatty degeneration of the liver and kidneys, and in two cases, probably of the heart also. Kochman[13] states that he has seen no death resulting from its use in patients, and that as much as thirty grains injected into a rather large dog will not cause the death of the animal.

Because of these meager results I determined to find out the effects of scopolamin and morphin injections on animals.

ANIMAL EXPERIMENTATION WITH SCOPOLAMIN AND MORPHIN

1. *Experiments on Rabbits.*—The injection of a single dose of scopolamin gr. 1/100 and morphin gr. 1/4 simultaneously into rabbits, produces a stupor lasting four or five hours and followed by complete recovery. When such an animal is killed the following day no pathologic change can be found. When rabbits are injected daily for as long as fourteen days and then killed, no lesions are produced. Such animals do not lose in weight and to all appearances remain perfectly normal. The killing of such injected rabbits on successive days shows nothing abnormal. The injection of a larger amount of scopolamin and morphin produces no differ-

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1. Deutsch. med. Wchnschr., 1905, 10.
2. Beitrage zur Chirurgie, xxxv, 3.
3. Langenbeck's Archiv, xxiv, 4.
4. Lancet-Clinic, v, Nov. 18, 1905.
5. Deutsch. med. Wchnschr., 1905, No. 10.
6. Muenchener med. Wchnschr., 1903, No. 28.
7. Deutsch. med. Wchnschr., 1905, No. 28.
8. American Medicine, No. 11, 1905.
9. Muenchener med. Wchnschr., 1902, No. 48.
10. Berlin klin. Wchnschr., 1903, No. 9.
11. THE JOURNAL, Sept. 2, 1905.
12. New York Med. Jour., 1906, p. 637.
13. Therapie der Gegenwart, May, 1903.

ent results, except that the resulting stupor is prolonged. I have injected daily scopolamin gr. 1/50 and morphin gr. 1/2 for ten days into rabbits, with no change in the physical condition being produced and no lesion on killing such animals after repeated injections. The toxic or fatal dose of scopolamin and morphin for rabbits, when injected in the same proportion as used in patients, previous to the administration of ether, is scopolamin gr. 1/10 and morphin gr. 2 1/2. This amount appears to be the average fatal dose for rabbits with evidence only of morphin poisoning. Any large healthy rabbit dies after a number of hours from such an injection. The postmortem changes in rabbits which have been injected with a fatal dose of scopolamin and morphin are practically those of asphyxia. Examination shows the heart, liver and kidneys of rabbits killed by a toxic dose of scopolamin and morphin to be congested.

2. *Experiments on Guinea-Pigs.*—I have injected guinea-pigs with scopolamin and morphin in the same manner as the above described experiment on rabbits. Single or repeated daily injections for a period of fourteen days produced no pathologic changes. The repeated daily injection of twice the dose given patients by me as a preliminary injection of ether narcosis is well borne. When such animals are killed after successive injections on from one to fourteen days no lesions are produced. The fatal dose is the same as that for rabbits, and the autopsy on a guinea-pig dead of a toxic fatal dose of scopolamin and morphin shows only congestion of viscera.

3. *Experiments on Cats.*—I have injected scopolamin and morphin into a limited number of kittens. The repeated daily injections produce no degeneration of the heart, liver or kidneys. The fatal dose for kittens was found to be scopolamin gr. 1/5, morphin gr. 5, death resulting from morphin. The injection of a single dose of morphin gr. 1/4, scopolamin gr. 1/100 into a kitten is followed not by sleep but by excitement. The animal staggers about and remains aroused for several hours. This action was not produced in other animals. The injections of larger doses, twice or three times the ordinary dose, does not cause a more marked period of excitement. Continued daily injections seem to produce a tolerance for the drug.

4. *Experiments on Dogs.*—I have injected scopolamin gr. 1/5 and morphin gr. 5 into a small dog, causing death. The postmortem findings were those of asphyxia. The effects of injections of scopolamin and morphin into animals are similar to those of morphin when given alone. It was therefore necessary to try the effect of scopolamin without the addition of morphin.

Injection of Scopolamin Alone.—The daily injection of scopolamin gr. 3/100 to gr. 1 1/20 into rabbits, guinea-pigs and kittens produced no pathologic changes even when continued for two weeks. The heart, liver and kidneys of such animals when killed after fourteen injections are normal. The fatal dose of scopolamin for these animals I have not determined. I have given a small cur dog scopolamin gr. 5 without causing death. Small kittens when injected on two successive days with scopolamin gr. 3 did not succumb. When killed, at autopsy, no pathologic changes in the heart, liver and kidneys were present. It is apparent that enormous doses of scopolamin can be given to animals without causing death.

Injection of Morphin Alone.—In order to determine the result of morphin without scopolamin a number of rabbits were injected with morphin 1/2 gr. The onset of the symptoms was not earlier than half an hour. The rabbit becomes quiet, nose and ears appear cyanotic, the respiration becomes less rapid. These symptoms increase in intensity for about thirty minutes and then the effects begin to wear off. On rough handling the animal is easily aroused and at no time is narcosis so intense that the animal may be cut or operation done as when the morphin is combined with scopolamin. After injections of rabbits for several days the drug does not produce such marked symptoms as with the first injection. They apparently acquire very rapidly a tolerance for morphin. When guinea-pigs are injected with morphin the symptoms which are identical with those of rabbits appear a little earlier. At the end of twenty minutes the animal is in a state of quiet, eyes remain wide open and it is cold. It can be readily aroused and if pain is inflicted will protest. The sleep is of short duration, lasts about half an hour. They do not acquire tolerance so rapidly as rabbits.

Injection of Morphin and Atropin.—When morphin gr. 1/4 with atropin 1/100 are injected into a rabbit the narcosis produced is not so intense as when morphin is injected alone. Atropin inhibits in some degree the effect of morphin. The animal is easily aroused.

Injection of Atropin Alone. — Atropin sulphate injected into rabbits in doses of from 1/100 gr. to 1/200 gr. produces rapid respiration and marked excitability.

SUMMARY

I have killed my animals after injection on successive days, so that I had the opportunity of examining the viscera daily after successive injections—from one to fourteen days. This was done in order to see if any change was produced in the heart, liver or kidneys by the injections, and after what injection it took place.

The result of my experiments show that in death from scopolamin and morphin the findings are those of passive congestion. I can not confirm the observations of those who are able to produce fatty degeneration of the heart, liver or kidneys.

Animals bear hypodermic injections of scopolamin and morphin well. If such injections are given repeatedly at long intervals it does not interfere with the nutrition of animals unless doses are so frequently given that the animals experimented on remain more or less constantly under its influence, that is, in a comatose or semicomatose state.

The study of these results show:

1. The effects of the injection of scopolamin and morphin into animals is similar to that of morphin when given alone, with the exception of the injection into kittens, in which excitement instead of sleep was produced.

2. Continued repeated daily injections produce no degeneration of the heart, liver or kidneys, the physical condition is not impaired so long as the injections are given at such intervals as not to interfere with the animal's nutrition. Daily injections of from one to three times the dose given to patients produces no pathologic changes in animals.

3. The toxic dose of scopolamin and morphin in my experiments corresponds very closely to that of morphin alone for the animals used.

4. The autopsy findings in animals which succumb to a toxic dose are the same as those for morphin, i. e., congestion of the viscera.

5. My animals seemed to acquire a tolerance for the drugs on long-continued daily administrations.

The cause of death in patients who have died after operation and who were previously given scopolamin has been more readily explained as due to great loss of blood during or before operation, to sepsis or to shock. They have been desperate cases and in not a single case could scopolamin be said to have produced death.

Scopolamin by itself is very slightly toxic for animals and certainly does not produce any degeneration of the heart, liver or kidneys.

REPORT OF 650 CASES OF SCOPOLAMIN-MORPHIN ADMINISTERED AS PRELIMINARY TO GENERAL ANESTHESIA

I have injected scopolamin gr. 1/100, morphin gr. 1/4, three-quarters of an hour before administration of ether as a preliminary to general anesthesia in 650 cases. In this series the extremes of life have been avoided. In 6 per cent. of cases there has followed practically no result, but in the remaining 94 per cent. I have noted a quiet state of the nervous system previous to operation that there has rarely been an instance in which the patient became excited or struggled during the administration of the anesthetic, the absence of mucus in the patient's throat, a lessening of 50 per cent. of the amount of ether used, the existence of quiet for some hours following operation, and the absence of postoperative vomiting.

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THE NEED FOR A SCHOOL OF TROPICAL MEDICINE IN THE UNITED STATES

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Now that the time has arrived when the English and German schools of tropical medicine may celebrate their decennial year, it is fitting again to bring up the question of establishing a school of tropical medicine in this country. I say "again," because nearly all of our leading medical journals ten years ago advocated the establishment of a course of tropical medicine in every medical school, and they have kept occasionally reminding us ever since of the importance of such study. Two well-known journals, one in 1898 and the other in 1899, advocated the establishment of a special school for the subject. Let us see what objections have been made to such a school.

The chief arguments used against the establishment of a school of tropical medicine are: 1. The government already has three, the medical schools of the army and navy and the laboratory of the Public Health and Marine-Hospital Service. 2. The subject is of very little importance to general practitioners, except those living in cities. 3. The United States has but little commerce with the tropics. 4. The subject is of vital importance only to government agents abroad. 5. There is already a good laboratory and medical school at Manila where tropical diseases may be studied. 6. The subject is better taught by the several departments, whose fields the subject touches rather than by a special department. 7. There is but little clinical material for teaching purposes in such a place as Boston, for instance.

In answer to the first argument, it is interesting to note that in England when Mr. Chamberlain, then secretary for the colonies, proposed to establish in London a special school of tropical medicine where colonial medical officers and other civil practitioners might receive instruction, the objection was immediately made that the colonial medical men could be better taught by the army at Netley, or by the navy at Haslar. The other civil practitioners were already provided for by the various medical schools and bacteriologic laboratories then in existence. The reply to the first was that the courses given by the army and the navy, however well adapted they might be to officers of these services, were unnecessary and unsuitable for candidates for the colonial medical service.

This answer is equally true for the United States, for the medical schools of our army and navy can hardly be called schools of tropical medicine. They do teach tropical medicine, it is true, but that is but a small part of the instruction. The laboratory of the Public Health and Marine-Hospital Service is another institution where tropical medicine is merely one of the subjects studied, and not the main subject. To confine the work of this laboratory to the study of tropical diseases alone would be to defeat the purpose for which the laboratory was established.

Mr. Chamberlain, despite the criticisms from the army and the navy, established what is now known as the London School of Tropical Medicine. This school has not only served to instruct future British colonial medical officers and civil practitioners, but has taught medical officers of the British army and navy who first objected to it. Among the foreign graduates of this same school from 1905 to 1908 may be noted three surgeons of the United States Army, and two surgeons of the United States Navy. The United States officers evidently took the course because it is not taught in this country with that "particularity needed for success."

The subject of tropical medicine is every day becoming more important to the general practitioner, whether he be in the city or in the country. This is largely due to increase in travel, the return of discharged soldiers and sailors, missionaries, teachers, people connected with our diplomatic and consular services, people of leisure, engineers and merchants. Such people are as likely to return to the country as to the city. It must be remembered that malaria is common in the temperate zones; that filariasis (easy of diagnosis in the later, but often missed in the earlier stages of the disease) has been reported in persons who have never been south of Mason and Dixon's line, and that last summer a case of amebic dysentery was found in a woman who had always lived in Nova Scotia previous to coming to Boston.

The commerce of the United States with the tropics is large. In 1906 our imports from warm countries were two-thirds and our exports one-half that of Great Britain, who owns one-fifth of the earth and governs one-fifth of the people of the world. Our trade with warm countries amounts to hundreds of millions of dollars. During the past year thirty-four ships have come to Boston from India, and at the present time there are three in port from the far east.

It is a mistake to say that tropical medicine is of vital importance only to government agents abroad. Our whole army consists of only 63,000 men, and more than half this number were lost by discharge last year. The total number of men in the navy is 39,000, and of this number 11,000 men were lost in the same manner. The greatest force of men in the tropics is kept in the Philippines, where there are about 12,000 soldiers. The large number of discharges from these small fighting forces means that the burden of the future treatment of these men is going to fall on the general practitioner of the United States. It is obvious that tropical diseases are of vital importance to civil practitioners in the tropics. The medical schools of Manila recognize this. It must also be remembered that southern United States is semitropical and that civil practitioners there must have a thorough knowledge of the subject.

That there is a good laboratory and medical school at Manila for the study of tropical diseases should not be a reason for failing to establish one in this country. Manila is more than a month distant from us, and few medical men would care to spend the time and money in going there for instruction. Physicians who intend to practice there should be taught before they go.

If tropical medicine is divided among the various departments of a medical school it will lack that thoroughness and completeness which is essential to success. Perhaps few, if any, of the instructors have seen many tropical diseases or have any special interest in them. Most of their time is taken with teaching other branches of their special work or with outside interests. The subject should be put in charge of a man who is willing to devote his entire time to this work; when not teaching he should be engaged in research. Arrangements and funds should be such as to allow him to visit the tropics every few years.

The number of cases of tropical diseases in such a place as Boston is greater than commonly supposed. As soon as the general practitioner gets better instruction he will recognize and report cases more often. Clinical material is not the only essential in studying tropical medicine. Much may be learned without it. Mosquitoes may be studied at home, and various bacteria and many of the animal parasites can be carefully studied in the laboratory. Another method of studying disease is by animal experimentation. By this means the life history of the organism, the symptoms, the methods of diagnosis, the pathologic histology and the treatment may be learned, often with more satisfactory results than in the human being.

Eleven years ago special instruction in tropical medicine was given in twelve British medical schools. Today in the United States there are only five medical schools giving special instruction during term time, and much of this consists of a few optionally-attended lectures. Is it not high time our country waked up and gave instruction in this important branch of learning?

7 Bay State Avenue.

Prophylaxis of Caisson Disease at Amsterdam.—The foundations for the great central depot at Amsterdam have required 800 days of caisson work and yet not a single life has been lost nor permanent incapacity resulted in any case. The laws regulating caisson work are very strict in Holland, and constant medical oversight is required. A number of advanced medical students were employed and physicians were always within easy reach. According to a correspondent of the *Wiener klinische Rundschau* (Jan. 20, 1908), some workman was affected on an average every fourth day. Pains in the muscles or joints were observed in about 100 cases, paresis in 4, the Menière syndrome in 3, vertigo in 4, and ear or other affections in 10 cases, besides numerous cases of intense itching. The symptoms were generally cured by returning into the compressed air and having the pressure gradually reduced.

Clinical Notes

A SATISFACTORY METHOD FOR STAINING BLOOD SMEARS

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THE VALUE OF BLOOD SMEARS

To the practicing physician the most important feature in all blood examinations is the stained blood smear. It is also the most exact of the hematologic findings. It is as important in all abnormal conditions of the blood (the infectious and chronic diseases, as well as the so-called blood diseases) as a stained tissue in the diagnosis of a pathologic growth. It gives the eye a true picture of the conditions present which the mechanical blood findings fail to convey.

It is to be regretted that with many it simply stands for the differential leucocyte count and occasionally a search for parasites or enucleated red cells. On the other hand, it is, indeed, the most comprehensive of all blood findings, for it includes in itself the mechanical as well as the pathologic findings, while it requires the least time, the least technic, is the least subject to errors in technic, and is the only one of the blood findings which can be permanently preserved, verified at a future date, or sent for verification elsewhere. After a little experience an approximate estimation within clinical limits of the number of red cells and leucocytes, the hemoglobin percentage, and the color index is possible. Added to all these advantages of the blood smear is the evidence of the shape, size, color (chemical), and histologic changes in the cells themselves, the appearance of abnormal cells and cells in abnormal members (so often pathognomonic), the phagocytic powers of the leucocytes, and the presence or absence of blood plates with, indeed, something of the relative frequency of the latter (with the corresponding prognostic value in hemorrhage or thrombosis).

INDICATIONS FOR BLOOD SMEARS

Every case which presents fever or pallor in its course presents an indication for a blood smear. Occasionally a blood smear has a negative value as well.

THE METHOD OF STAINING

To obtain the results indicated above, it is clear some very satisfactory method is needed. The method here given is simply the old Romanowski stain (polychrome eosin-methylene blue) as further modified by Jenner (the use of methyl alcohol as the diluent). The Jenner-Romanowski stain has been subjected to many further modifications. Locally, in the schools and hospitals of Chicago at least, the particular modification here recommended has been known for several years as the Skelton stain.[1] It has been my experience, however, to find that many do not have as good success as might be wished with this stain. This is due to the fact that certain simple features in the technic are indispensable. I present here in detail the method of staining blood smears which I have used for the past four years and have demonstrated to medical students during this time, with the result that four out of every five have succeeded in making satisfactory stains on the first attempt, and this within five minutes' time.

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[1] Priority for the so-called Skelton blood stain belongs, I believe, to Dr. William P. Harlow, who first described the principle of the stain (Am. Jour. Med. Sc., April, 1904, p. 662). Peebles and Harlow again call attention to this stain in their recent article (Clinical Observations on Blood Stains, THE JOURNAL A M. A., March 6, 1909, p. 768). My technic for the use of this stain applies the same principles. I believe that, after being given a little more publicity, the Harlow stain will supplant all the common blood stains now in use.

The staining solutions are two in number and are made up by the physician himself: 1. About one gram of water-soluble eosin (Grübler) is dissolved in 100 c.c. of absolute methyl (wood) alcohol (Merck or Kahlbaum); 2, one gram of the ordinary Ehrlich's medicinal methylene blue (Grübler) is dissolved in 100 c.c. absolute methyl (wood) alcohol. These two stains are kept separate in ground glass-stopper bottles of 100 c.c. capacity. They are ready for use immediately, though it is preferable to wait a few hours for a more complete solution of the dyes. Both stains as thus made are supersaturated. There is always some insoluble residue as well.

Blood smears are made by the cover-slip method: that is, one cover-slip is touched to the fresh drop of blood and another immediately laid crosswise of this with the corners projecting until the film has spread almost to the edges, when the cover-slips are quickly slipped apart by the fingers or forceps and dried immediately by shaking in the air, one slip in each hand. Thus two dried films are made. These are ready for staining at once, though they may be carried around for several days, care being taken that flies are kept away from the film side, as they rapidly eat up the dried corpuscles.

The staining is done away from the air, this being the secret of success of the whole process. This is to prevent the evaporation of the absolute alcohol, which produces a rapid precipitation of the dyes and so spoils the smear for subsequent examination. To effect this, ordinary watch-crystals may be used, the stain poured in one and another inverted over it to cover it. As these are rather awkward to handle, however, the Syracuse flat-bottomed watch-glasses, which may be piled one on the other, are ideal. In staining a smear made on a glass slide instead of on the cover-slip the slide may be dropped directly into a wide-mouthed bottle containing the staining solution and the bottle stoppered at once.

TECHNIC

A. A little of the eosin solution is poured into a watch-glass, the dried blood smear dropped into it, preparation side downward, and covered immediately with the second watch-glass. This is left from one-half to one minute. A little of the methylene-blue solution is poured into the second watch-glass and this covered with a third. B. At the end of the minute the cover-glass is removed from the eosin solution by means of a blunt-pointed forceps and dropped face downward at once into the methylene-blue solution. Here it remains the same length of time. C. The cover-glass is now picked up by the edge with the forceps and rinsed rapidly three or four times in a small beaker of tap water, provided this water is of the surface variety; otherwise distilled water or rainwater should be used. D. The edge of the cover-slip, still grasped, is touched to a piece of filter paper to drain off the excess of water, after which it is quickly blotted dry between two pieces of filter paper. It is mounted, preferably in cedar oil, and examined either with a sixth, eighth or twelfth objective. The stains are poured back in their respective bottles immediately after use. None of the stain is ever thrown away.

ADVANTAGES OF METHOD

This method is not a new one, but I wish to emphasize the fact that it is by far more reliable and satisfactory to the busy physician than many of the newer methods, Leishman's, Wright's, Hastings', Nocht's and other modifications of the old Romanowski stain; and, further, it stains the red corpuscles directly in proportion to the amount of hemoglobin they contain.

Among other advantages are these: The physician prepares his own dye solutions, the time required being probably ten minutes. There are no difficulties, such as uncertain titrations, neutralizations, filtrations, etc., to contend with. The stains are used over and over again; the older the stain becomes the clearer, sharper and more rapidly it stains. No previous fixation of any kind is necessary; rinsing and washing between the stains is contraindicated. The apparatus necessary is of the simplest, viz., three Syracuse watch-glasses (recommended, but not necessary), a small beaker and a pair of forceps. The total time required for staining an ordinary blood smear need not exceed three minutes. The staining itself can be accomplished in one minute. Again, the stain is of the polychrome variety, no subsequent counter stains being necessary to bring out eosinophilic, neutrophilic or basophilic granules. As Romanowski says, it is an ideal stain for the malarial parasite. It is also for the commoner organisms. It is an ideal stain for the differential leucocyte count. All nuclear matter takes an intense diffuse blue stain, hemoglobin a red stain, neutrophilic granules a reddish-purple (pepper grains), eosinophilic granules a scarlet (red currants, i. e., the same color as the surrounding red cells), basophilic granules a blue-black (bird shot). Blood plates are seen in clumps in the clear spaces and stain a pale violet. Malarial pigmentations remain unchanged. Ordinary bacteria take the methylene blue. All the above features are contrasted in the field in a very striking way. There is no "washed-out" appearance.

PRECAUTIONS

The only precautions are these: 1. The blood smear should be properly made and rapidly dried (see any text-book on hematology). 2. The dye solutions should be kept at all times under cover. 3. The ingredients used should be reliable. I have rarely found any difficulty with the makes of dyes or alcohol noted above.

It is best never to buy more than a ten-gram sample phial of each of the dyes. This is a very small expense, and a good sample (tested by its staining abilities) should be set aside and kept for this stain alone. Five hundred cubic centimeters of absolute methyl alcohol will suffice for all time. The sum of $2.00 will secure enough ingredients to last a lifetime. Any failure in the ingredients is easily detected. If the hemoglobin in the red cells is not stained well in at least two minutes' time the eosin sample is usually worthless. Occasionally such a solution improves on standing for two or three weeks' time. If the methylene-blue solution does not bring out the nuclei of the leucocytes in good sharp contrast to the protoplasm and its contents in two minutes' time, it should be dispensed with for a new sample.

It is to be noted that this stain does not bring out the chromatin network in the nucleus as does Wright's

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[illegible] Medical College

stain and other similar stains wherein a neutral dye (azure-blue) is produced, but this is of no value to the physician and is apt to be confused by the less experienced with the granules in the cytoplasm.

It is easy to test the purity of the methyl alcohol in regard to water contents. It should be at least 99 per cent. pure. Such a sample shaken up with about a gram of powdered anhydric copper sulphate in a test-tube and allowed to stand for four hours should show no blue color to the solution and only a bare trace of green in the copper sulphate sediment in the bottom of the test-tube at the end of that time. A more accurate test is to shake equal parts of the alcohol and benzol together when any turbidity of the resulting solution proclaims the presence of water. In case of failure with either of the stains it is usually best to test the alcohol first, as I have more often found this at fault than the dyes themselves. One peculiarity that may be noted is that if an absolute methyl alcohol can not be obtained, but one which is at least 95 per cent., the alcohol-soluble eosin (Grübler) will often make a very satisfactory stain where the water-soluble eosin fails.

It will be noted from the method given above that a little of the eosin is conveyed by the cover-slip each time into the methylene-blue solution. This is no detriment, and is, in fact, I believe, one of the reasons why the latter solution improves "with age." I have had no success, however, with direct admixture of the two dyes either in equal proportions or various proportions. It is to be noted that this is the scheme of the Jenner stain except that the addition of distilled water is made and a new dye substance (neutral dye) is really formed.

In my experience the presence of water in either of the staining solutions accounts for the uncertainty of the stains at various times, their tendency to deteriorate, and for the failure to bring out the nuclei, especially of the large mononuclear forms, and to stain the granules in the myelocytes. Stains made up at various times will vary somewhat in the intensity of their reactions, but the propensities of any given sample are quickly learned, and as the dye is used over and over again the original 100 c.c. solution will last many months if not years. On account of the supersaturation all that is necessary when the dye gets down near the bottom of the bottle is to render more of it soluble by the addition of methyl alcohol. I have some stain at hand which is over four years old and will stain thoroughly in ten seconds. It will not overstain if left several hours.

SUMMARY

1. The stain for blood smears here advocated for busy physicians is a modified Jenner-Romanowski (polychrome eosin-methylene-blue), commonly called Skelton's stain.

2. This stain consists of only three ingredients (methyl alcohol, eosin and methylene blue) and is made up by the physician himself in ten minutes' time.

3. The following directions embody the secret of success with the Skelton stain: 1. Keep the two dye solutions separate. 2. Stain away from the air. 3. Use pure methyl alcohol and keep the stains uncontaminated with water.

4. Advantages of the stain and method are: 1. Rapidity—one to three minutes for the entire process. 2. Simplicity—no special technic, no guess work, no "eye on the watch." 3. Impossibility of overstaining. 4 Polychrome staining—acidophilic, basophilic and neutrophilic properties brilliantly contrasted as well as pathologic discolorations. 5. Red cells stained in direct proportion to amount of hemoglobin carried—a Tallqvist scale on a microscopic principle. 6. Staining of the blood plates. 7. The ideal parasite and bacterial stain for blood smears. 8. Improvement with age; the stain never deteriorates. 9. Inexpensiveness—the same stain is used repeatedly—one to two dollars will buy enough of the ingredients for a lifetime practice.

5. Indication for blood smears: fever or pallor.

6. The physician is urged to make a blood smear (preferably cover-slip) at least in every case where indicated, whether other blood determinations are made or not; for (1) some idea of the number of erythrocytes and the percentage of hemoglobin (in ordinary anemias) can be readily attained; (2) the color index and the leucocyte count can be estimated well within clinical limits; (3) the differential leucocyte count, poikilocytosis, parasites, etc., in other words, the true pathologic picture can be obtained in no other manner; and (4) a permanent record of all these findings is gained which has been easily obtained, and an indication and stimulation for more blood work where necessary.

A CASE OF TETANY TREATED BY CALCIUM SALTS

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In a recent issue of The Journal[1] attention was editorially called to the relation between calcium metabolism and tetany, and reference was made to a paper by MacCallum and Voegtlein[2] on the subject. In a preliminary report by these authors, appearing last year,[3] I was first made aware of the importance of calcium in tetany, and was prepared to apply clinically the experimental principles evolved by these writers should the occasion arise. Such an opportunity has presented itself, and the purpose of this article is to put on record clinical observations which may be of interest and importance.

I have no intention of venturing on an elaborate discussion of the whole question of tetany in a paper primarily simply a case report; but a brief preliminary summary of the work referred to above is necessary, in order to make evident the bearing of the findings in this case. Tetany is a condition which has been observed to arise in connection with a number of disorders. It may be associated with gastrointestinal disturbances, particularly gastric dilatation, with lactation, with acute infections, and after thyroidectomy. It is characterized by intermittent tonic contractions of the voluntary muscles, which in severe cases may be associated with great disturbances of respiration and a comatose mental state. The most typical contractions are those occurring in the hands and arms, the fingers being firmly pressed together, stiffly extended at the interphalangeal joints, but flexed on the hand at the metacarpal-phalangeal articulations. The thumb is opposed tightly against the palm and the hand flexed on the wrist. This posture has been termed the "obstetric" hand, as the position is much like that assumed in manual dilatation of the cervix. Without detailed discussion of the theories as to the etiology and pathology of the disease, the facts to which I wish to call attention are the following:

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[1] The Journal A. M. A., Jan. 30, 1909, lii, 388.

[2] Jour. Exper. Med., 1909, xi, 118.

[3] Johns Hopkins Hosp. Bull., 1908, xix, No. 204, p. 91.

The cases of tetany following thyroid operations have been satisfactorily shown to be due to destruction of the parathyroids. In animals experimentally deprived of the parathyroid glandules tetany develops. In studying the metabolism of such cases MacCallum and Voegtlin discovered that there was a profound disturbance of calcium relation and that the animals lost this element rapidly by excretion, the calcium contents of the blood and tissues being much reduced. The animals improved on an increase in the ingestion of calcium salts. From these data the two authors referred to have postulated certain hypotheses. They suppose that the internal secretion of the parathyroid presides over calcium metabolism in some manner, and that when this secretion becomes deranged there is a consequent disturbance in the use of calcium by the tissues. The removal of the glands obviously precipitates such derangement. But it may also arise in consequence of the changes associated with lactation, the puerperium, gastric dilatation, etc. This, in brief, is the central idea presented. It has been elaborated considerably by theories as to how the disorder of the parathyroid may occur in various clinical cases, and as to the specific functions of calcium salts, but the elementary conception is as just described.

With this outline of the relation between calcium and tetany, I will proceed with the following case report.

History.—The patient was a white girl aged 8. She was sent to the University of Virginia Hospital by Dr. F. L. Thurman, of Keswick, Virginia; was admitted Sept. 8, 1908, at about 11 a. m. Her family history was unimportant. For some months the patient was subject to frequent attacks of abdominal pain, most intense in the epigastrium. There was loss of appetite, but no definite nausea and no vomiting. These attacks were relieved by various home remedies. The child was otherwise healthy.

Present Illness.—The patient went to bed the night before admission apparently well. There was no history of indiscretion in diet. In the morning, on arising, she complained of one of the attacks of abdominal pain noted above, and was given a small drink of whisky and put to bed. About an hour afterward the mother's attention was called to the child by hearing her groan. She was found comatose, and seized by one of the convulsive attacks to be described later. Her physician was called, who sent her immediately to the hospital, the patient arriving less than five hours after the onset of the trouble. During this interval she was in the condition now to be noted.

Examination.—The patient was well nourished, of good color, and general healthy appearance. A careful search failed to show any lesion that might have been portal of entry for tetanus. The child was semicomatose, failed to answer questions, and uttered no sound except an occasional groan. There was no fixed attitude of face or body. At intervals of from five to fifteen minutes, however, there was a convulsive seizure lasting several minutes, with marked rigidity of neck and jaw, and opisthotonos. The jaw was sometimes closed and sometimes open, but always rigid during attacks. When the jaw was open the tongue was forcibly protruded. During these seizures the patient groaned with pain, and became cyanosed and dyspneic. The most peculiar feature of these attacks was the behavior of the extremities. The arms were always rigid, sometimes extended, sometimes flexed at the elbows, but the hand and wrist always took the position known as the "obstetrical hand." The feet were also forcibly extended. The eyes were held half closed, and rolled far out on either side or upward or downward, but never with strabismus or nystagmus. The knee-jerks and other reflexes were somewhat exaggerated but there was no clonus anywhere. Temperature was 101 degrees, pulse 135 per minute, the tongue coated, chest clear, the abdomen negative, except for some fulness. Trousseau's phenomenon of induced spasms of the hand by compression over nerves and vessels of the arm was doubtful. A partial contraction was produced, but not a complete reproduction of the typical position. Chvostek's nerve tapping sign was negative. The child voided involuntarily in small amounts. Swallowing was impossible.

Treatment.—The patient was chloroformed during the convulsion and calcium treatment started at once. A subcutaneous infusion of normal salt solution to which 30 grains of calcium lactate had been added was given, and every four hours 10 grains of the same salt were administered in milk through a nasal tube.

Course of Disease.—The condition of the patient remained about as described for nearly twenty-four hours. At 1 a. m., September 9, convulsions became gradually less, and the last one occurred at 3 a. m. After this the patient fell into a stuporous sleep which lasted until about 7 p. m., the patient only arousing when the nasal feeding of milk and calcium lactate was given. During the evening of September 9, the patient was awake in a drowsy condition. At 1 a. m. of September 10 she responded to her name and spoke a few words for the first time. During September 10 she was apparently much better except for marked mental dulness, and that night she slept well. During this day she could swallow and talk, and the next day seemed practically well. She was discharged from the hospital September 12, 1908, the calcium being kept up to the last.

The report of our case affords no justification for drawing any general conclusions, but it presents several facts of interest. First, as to the diagnosis. Tetanus and hydrophobia can be excluded as possibilities by the history, symptoms and conclusion of the case. Strychnin poisoning, which was suggested by the onset closely following the drink of whisky, is excluded by the dull mental condition, lack of sensory stimulation, and absence of any ill effect following the drinking of the same whisky at approximately the same time by other people. The diagnosis between hysteria and tetany was more difficult. The absence of any previous hysteric condition, the temperature, pulse-rate and general appearance of the patient made against hysteria. On the other hand, the clinical picture was identical in every particular with that of a severe attack of tetany, excepting the equivocal Trousseau's sign and the absence of Chvostek's phenomenon. I did not determine the size of the stomach and so can not say whether it was dilated or not. The incontinence and tossing of the patient made the collection of urine impossible during the first part of the attack. When it was examined, during convalescence it was found normal. The patient has been followed since her discharge and has remained entirely well. In the event of a second attack the doubtful points just noted will be again investigated.

In conclusion, while not drawing deductions by the formula "Post hoc, ergo propter hoc," the following facts are clear: A case of tetany of unusual severity and intensity cleared up in a remarkably short time, following treatment with calcium salts, and in the absence of any other treatment save chloroform for the actual convulsions. The case certainly seems to lend clinical support to the experimental work of MacCallum and Voegtlin.

Disseminated Telangiectasis of the Liver.—Hedrén concludes that the primary condition is a degeneration and disintegration of liver cells and the telangiectasis a secondary and purely mechanical sequence. The same condition occurs in cattle as in human beings.—*Hygiea Festband.*

AN UNUSUAL CASE OF MENTAL DEFECT OF TRAUMATIC ORIGIN

OPERATION, FOLLOWED BY MARKED IMPROVEMENT *

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The case which I have the opportunity of reporting was referred to me Feb. 5, 1908, by Mr. G. W. Ehler, former supervisor of physical training in the Cleveland schools. His attention was called to the boy's mental peculiarities by the teacher in charge of the department for defectives. The presentation of this unusual condition is, I believe, fully justified by the rarity of the phenomena, as nowhere in the literature can I find a similar syndrome.

Patient.—Carl R., aged 7, male, height 4 feet, born in Cleveland. The father and mother of this boy are sturdy and industrious Germans. They both enjoy excellent health and are of rugged constitutions. There is no history of neuropathic or psychopathic taint. Their family consists of ten children, seven of whom are older than the patient. The parents are not and never have been addicted to alcoholic beverages or narcotics of any kind. Both deny having had venereal or specific disease. All the children except Carl are of vigorous mentation.

History.—This lad was born at the full period of gestation. During pregnancy the mother was not subject to bodily injury or disease or to any extraordinary emotion. The delivery, however, was instrumental. At birth no peculiarity was noticed and the patient was considered normal in every respect. In early infancy he suffered an attack of measles but escaped whooping cough, scarlet fever, diphtheria and acute brain disease. At no time has there been any suspicion of chorea, paralysis, spasms, convulsions or loss of consciousness. The boy began to walk at the age of 14 months and to talk at the age of 15 months. During this period he was bright, active and affectionate and entered gleefully into the natural gaiety of childhood. When 2½ years old he was playing on the foundation of a building which was being erected in the neighborhood and accidentally fell about six feet, striking his head on a brick, inflicting a wound one and three-quarter inches over the right frontal area, one inch above the middle of the superciliary ridge. The family physician sutured and dressed the injury. No complications ensued and a rapid recovery resulted. Within the year following this incident a gradual change in the psychic personality of the boy was observed. At times he would appear listless and distracted. He also seemed to suffer from an exaggerated sense of fear. It was difficult to make him understand and he could not be trusted to run errands. He was partially amnesic. It was further noticed that he persisted in doing many things in a reversed manner. For instance, he invariably would lace his shoes from the top down and dress himself contrary to the usual order of modern custom. The family looked on these oddities in a mirthful manner and no significance was attached to them until the boy began to go to school. He was then six years old. It did not take the teachers long to decide that the boy was deficient. He lacked spontaneous attention, his perceptive power was feeble and he could not learn. In due time it was necessary to transfer him to the department for defectives, in charge of Miss Mahoney, who made a careful study of the case and discovered that the lad copied all letters and figures in an inverted manner.

General Examination.—The subject was a well-nourished, right handed boy, weighing sixty pounds. His heart and lungs were apparently normal. There was nothing of interest in the abdominal organs. Examination of the urine was negative. The patellar, tendo-Achilles, mandibular, cremasteric, abdominal and sphincter reflexes were alive and brisk; the Babinski phenomena absent. There was no muscular atrophy or hypertrophy anywhere, and in general the muscles were well developed. The gait and station were unaffected. No evidence of ataxia, tremors, tics, or twitchings could be determined and no anomaly of sensibility.

Eyes: (Dr. Leo Wolfenstein.) Exterior appearance of both eyes normal. Binocular fixation. No limitation of motion in either eye. Good convergence. Pupils medium size, equal and both reacted promptly to light and distance. Vision of both eyes 6/6. Field of vision roughly tested did not appear to be contracted, at any rate no hemianopsia. Field of vision for colors could not be determined on account of lack of intelligence of patient. Fundus of both eyes: media clear, disc round, clearly outlined, good color, small physiologic cupping. No pathologic findings anywhere in fundus. Low hypermetropia.

Stigmata Hereditatis: Inspection showed no developmental abnormalities of head, trunk or extremities. The ears were somewhat large but not disproportionate in size. The setting of the teeth and their general conformation was good. A pronounced high arched palate was evident, but this was the only sign that might be considered degenerative.

Cranial measurements:

Circumference	.......45.5 cm.	Binauricular arc	.......27.5 cm.
Volume	1180	Binauricular diam.	....11.2 cm.
Naso occipital arc	.......25 cm.	Anti post. diam	......16.3 cm
Naso bregmatic arc	..... 9.8 cm.	Length breadth index	...75. cm.
Bregmatolambdoid arc	..10 cm	Facial length	.... 9. cm.

Lumbar puncture was not made.

Psychic Condition: The expression was vacuous and only occasionally did the patient smile. He recognized a few of the objects in common use but did not seem to understand the purpose they served. There was absolutely no spontaneity of thought and the boy uttered not a word unless interrogated. Almost nothing was capable of arousing his interest except money or something spectacular in appearance. His attention was defective and the slightest mental effort seemed to exhaust him greatly. He was easily distracted. His ideative content was most meager and there was poverty of the memory. He was unable to differentiate between different coins but could count correctly up to ten. When requested to copy letters he persisted in making them inverted. At the same time he was fully aware that his reproductions were wrong and tried repeatedly to correct them, only to fail utterly in the attempt. All figures he made on the order of mirror writing.

Habits: The lad was cleanly to a degree and thoroughly obedient. He had acquired no bad habits; was not given to cruelty and had never been quarrelsome or irritable. His table deportment was satisfactory.

Diagnosis.—When this patient was first presented an attempt was made to determine whether the brain was tangibly injured at the site of the external wound or at some remote and inaccessible location or whether the case was one of phrenasthenia (feeble-mindedness) precipitated by the injury. A conclusion was made still more difficult by the assertion of Phelps[1] and others that a lesion of the right prefrontal lobe was unattended by mental decadence. It may safely be assumed that prior to the accident this boy was bright and mentally alert. His condition when examined two and a half years after the injury was that of a weak-minded youth. It must, of course, be admitted that phrenastheniacs frequently make figures in an inverted manner; but why should this patient display such a pronounced disturbance in writing (dysgraphia) when the motor area of written speech or register of the kinesthetic images of writing occupy the base of the second left frontal convolution and the letter-seeing zone the angular gyrus in right-handed persons? A few exceptions to this rule, however, have been reported, based on absolute necropsy findings. It might be argued that inasmuch as the center of writing and its association tracts are the last portions of the linguistic cerebral basis to be developed in normal brains and as this boy had barely a year's schooling it is quite probable that his writing functions were but slightly organized, and if such was the case the condition could not be termed a dysgraphia. On the other hand, if the contention of Phelps and others is correct, the brain in this instance must have been disordered on the left side. A *lesion* involving the left prefrontal lobe would readily account for the boy's psychic enfeeblement. The graphic symptoms, however, would indicate that the disturbance was more general. As I mentioned before, the patient was aware that his reproductions were incorrect but was unable to copy accurately what he saw, so it is evident that there was some interruption in the tracts connecting the visual center and the graphic motor apparatus. It does not seem possible that the definite localization of the lesion in this unusual case can positively be determined. At any rate an attempt to do so on my part would be mere conjecture.

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* Read before the Clinical and Pathologic Section of the Academy of Medicine of Cleveland, Dec. 4, 1908.

[1] Am. Jour. Med. Sci., March, 1906.

That the underlying causal element was an excess of fluid within the cerebral vault I am inclined to believe, as the symptoms gradually subsided when the tension was relieved. While no thought of a cure was even anticipated from surgical intervention it was deemed advisable to resort to some such measure as there was tenderness, headache and marked depression of bone (at least of the outer table) at the site of the external wound.

Operation.—The patient was referred to Dr. F. E. Bunts, whose operation at Charity Hospital, March 24, 1908, was as follows: "The head being entirely shaven and a tourniquet placed around the skull just above the eyebrows, an osteoplastic resection of the skull was made in the right frontal region, including the area of apparent depression of the outer table, the base of the flap being toward the face. After throwing back the bone flap and scalp together the inner surface of the bone was examined but no evidence of an old fracture presented. The dura was then carefully examined and it was thought that at one point it was somewhat more tense than normal and a small incision in the dura was made. Cerebrospinal fluid escaped *in a very small quantity* but apparently not enough to account in any way for cerebral disturbances. No other lesion having been discovered, the bone flap was replaced and the scalp stitched in place.

"*Postoperative History.*—Primary union occurred and the patient left the hospital April 7, 1908, two weeks after admission, with no apparent change in his mental condition." As was the case before, the patient was listless, indifferent and distracted.

Several physicians at this time examined him in regard to his ability to copy and found his copies still inverted. On the assumption that the operation had signally failed, as we had reasonably expected, and that the future of the boy would be clouded in imbecility, it was considered best to have him return to the school for defectives. On May 9, 1908, report came to us that the patient was gradually improving, was now able to copy correctly, and that he displayed considerable interest in his studies.

Another examination was made the following week, and the examiners were amazed to find that there was a decided change for the better, that the patient could now reproduce letters and figures accurately and that his memory and perceptive power were very much more keen. From the time of his discharge from the hospital to date of writing, Dec. 4, 1908, he has regularly attended school and through the summer months his teacher has given him private lessons of one half hour's duration at her home. The result has been, to say the least, most gratifying to all concerned. The boy is *now a responsive child* well adapted to his environment and able and willing to learn. From my close observation of the case I am firmly convinced that the improvement will be continuous and permanent.

It is not my desire to report this condition as a cure, because the boy is not as well endowed intellectually as a normal boy of the same age, but I do assert that the operation has been the means of clearing up some very troublesome symptoms, has given the patient a richer mentalization, and has unquestionably spared him a life of mental inertia.

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AN APPARATUS AND SIMPLIFIED METHOD OF DETERMINING GASTRIC AND OTHER ACIDITIES QUANTITATIVELY

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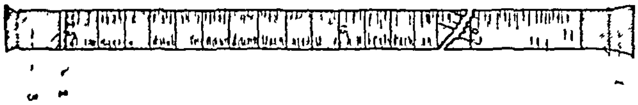
The usual method of determining the amount of the various acids in stomach contents after a test trial necessitates numerous and more or less troublesome apparatus, viz., burette-holder and stand, burette with attachments, one or more glass beakers and a second burette or pipette in which to measure the stomach contents. By the method about to be described many of these instruments are done away with and only a single burette, properly fitted, is made use of, together with an eye-dropper, preferably with a long shank to reach down in the bottle containing decinormal alkali.

The burette is made in the following manner: An accurately graduated tube whose inside diameter is from six-sixteenths to seven-sixteenths of an inch, and which holds 25 c.c., should be marked off in tenths of a cubic centimeter. The lower end of such burettes have a space below the 25 c.c. mark not etched: this should be removed to within about 2 cm. of the 25 c.c. mark by the aid of a triangular file. Then the end should be fused and made slightly narrower with a Bunsen flame. A soft rubber cork, a trifle larger than the inside diameter of the tube, should then be inserted in the lower end, so that it reaches a point nearly opposite the 25 c.c. mark. This point is determined by placing three, or whatever number of drops of the alcoholic indicator is individually used, in the bottom, and then pushing up the cork so that the meniscus is on a level with the 25 c.c. mark. I have also used a thick paste of calcium sulphate and forced this up from the bottom and carefully smeared the surface of the plaster with paraffin so that the indicator would not stain this permanent plug. It has the disadvantage, however, of being more difficult to do, and if the tube becomes badly soiled, the lower end is beyond the reach of the average cleaner. The preparation of such a tube requires but a few moments.



Burette for stomach analysis. 1, Rubber cork for purposes of shaking. 2, Space occupied by indicator. 3, Rubber cork to act as plug.

The technic of the analysis is as follows: Drop the desired amount of indicator in the burette and then add 10 c.c. of clear stomach contents (up to the 15 c.c. mark), agitate to distribute the color, and drop in carefully the decinormal alkali, inverting the tube from time to time, corking the upper end with a rubber similar to that inserted in the bottom of the tube. When the neutralization is complete, read off on the burette the number of cubic centimeters found necessary, and multiply by ten, which will give the amount of free acid present, expressed in terms of the alkali, which is the most desirable way. Now, add the indicator to express the total acidity, directly to the contents (about three drops of an alcoholic solution of phenolphthalein), and again add the alkali to the end reaction, and again read off the amount on the burette and record as before.

It is unnecessary to determine the free acid and the total acidity by separate quantities of stomach contents, and it is therefore justifiable to add the phenolphthalein directly to the contents already containing the alcoholic solution of "dimethyl." The amount of error in adding the few drops of the alcoholic solutions to the aqueous stomach contents is negligible for clinical purposes, as may readily be proved by adding the same number of drops of alcohol to a tube almost full of water.

It is well to have two control tubes, or one control tube with a paraffin "partition" in the middle, with the end reaction of the "dimethyl" below and the end reaction of the phenolphthalein above the partition. This tube should be of the same diameter as the burette; the liquid may be made of about the same opacity as the stomach contents with dilute starch paste and the tube finally sealed to prevent the access of air. This, of course, is a valuable standard for comparison and will not change, with proper precautions, as the appreciation of the eye for colors will.

I claim for this modified method the following advantages: Simplicity, economy, greater accuracy than the usual method, saving of time, and cleanliness.

716 Alaska Building.

CASE OF POISONING BY FORMALDEHYD

A. J. BOWER, A.B., M.D.
GREENVILLE, MICH.

Owing to its intensely irritant properties, formaldehyd is rarely used for suicidal purposes, and few cases of poisoning with this substance have been recorded. In the literature at my disposal I find two fatal cases reported, one of which is described by L. A. Levison[1] in 1904. In that case the patient swallowed between two and three ounces of commercial formaldehyd and died in collapse about twenty minutes later. Autopsy showed the mucosa of the lower part of the esophagus, stomach and first portion of the duodenum to be dark, chocolate brown in color, and of the consistency of leather. There was an excessive amount of mucus in the bronchi.

On account of the small number of cases of poisoning with formaldehyd I have thought it advisable to report this case in detail:

Patient.—Miss M. S., aged 20, swallowed about a half an ounce of formalin. I saw her about twenty minutes later; she was sitting up, not complaining of any pain; pulse was 106 and of good quality.

Treatment and Result.—Lavage of the stomach was done, there being a strong odor of formaldehyd to the first washings. Immediately after the removal of the tube the patient fell to the floor in a condition of collapse, with loss of consciousness, pallor, irregular pulse, and coldness of the body and extremities. Strychnin was administered, and after several minutes consciousness was partially regained, and she complained for the first time of pain in the throat and stomach, the latter being paroxysmal in nature. The patient vomited twice, the vomitus being small in amount and containing blood. Demulcents, such as milk and the whites of eggs, were administered; an ounce of castor oil was given, by
t tube, for both its demulcent and cathartic effects. The
Gener was stimulated with strychnin, gr. 1/30 being given
right-hand tically, three doses in the first hour, then continued
lungs were hours for twenty-four hours. About six ounces of
in the abdon as given every two hours alternating with a
negative. The er containing a dram of sodium bicarbonate.
teric, abdominal ure was given every two to four hours con-
the Babinski phe each of the acetate and citrate of potassium
atrophy or hypertro

Subsequent History.—The patient lay in this stuporous, semi-conscious condition for about thirty hours, showing a slight gradual clearing up of her physical and mental condition. During this time she was entirely unable to speak; she could understand conversation, but was unable to reply, the muscles of her mouth making labored, but fruitless movements. The tongue could not be protruded beyond the teeth, but could be seen to be reddened and swollen. The eyes could be opened only with great difficulty. After about thirty-six hours she regained the power of speech, talking at first slowly, and with difficulty. When questioned regarding pain, she said there had been no constant pain, except in the throat, and it was not severe there; there was pain in the esophagus and stomach at varying intervals, not of long duration, nor severe except at first. She could not describe the nature of the pain definitely, but considered it more as a heavy, dull, aching than as a smarting or burning. The further recovery of the patient was rather rapid. She was able to be out of bed in about four days, and in a week she went to her home forty miles away.

A surprising feature was the slight amount of kidney disturbance. A specimen obtained thirty hours after taking the poison showed a turbid, grayish-yellow urine, with a specific gravity of 1.019, amphoteric reaction, with no albumin (or sugar); there was a heavy sediment consisting mainly of triple and amorphous phosphates, with but few epithelial cells or leucocytes. Two days later the urine was nearly normal, except for an alkaline reaction, probably due to diuretics given, the presence of phosphates and many epithelial cells.

MALIGNANT ENDOCARDITIS FOLLOWING CHANCROID

I. FRANKLIN COHN, M.D.
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MARE ISLAND, CAL.

The following case is considered to be of interest as it illustrates a somewhat unusual method of the development of malignant endocarditis, the micro-organisms gaining access to the circulation through the ulceration of a chancroid:

Patient.—O. W. W., fireman second class, U. S. Navy, was admitted to the U. S. Naval Hospital, Mare Island, Cal., on Dec. 19, 1908, as affected with "chancroid." There was no coexisting gonorrhea.

History.—The patient was 29 years old, single, had had about ten months' naval service, and had never been on the sick list since enlisting. He was formerly employed as a railroad brakeman. He used alcoholic drinks excessively some years previously; tobacco, moderately. He stated that he had an attack of "typhoid-pneumonia" three years ago and that he had always enjoyed excellent health since that time. He denied any previous venereal history or ever having had rheumatism.

Course of Disease.—On admission he presented an annular ulcerating chancroid surrounding the meatus. The inguinal glands were not involved. Healing was fairly rapid under treatment by applications of crystals of copper sulphate. On December 24 he suddenly developed severe cardiac symptoms; temperature, 101.2; pulse, 136; respirations, 52. The heart was found to be enlarged downward and toward the right and left sides. Auscultation revealed a diastolic murmur at the second right costal cartilege, transmitted toward the apex. The pulse was distinctly of the Corrigan type. The diagnosis was then changed to *cordis valvularum morbus* (*cardiac valvular disease—aortic regurgitation*). The septic condition gradually became worse, the temperature ranging from 100 to 103; pulse, 120 to 140; respirations, 40 to 60. A large area of impaired resonance, approaching dulness, was noticed over the lower lobe of the left lung, anteriorly and laterally. The usual measures used in the treatment of acute endocarditis failed to give any relief. The white blood count ranged from 20,000 to 40,000. A purulent pericarditis was suspected and on Jan. 5, 1909, a paracentesis of the pericardium was performed under local anesthesia (ethyl chlorid) but no fluid was obtained. The patient's condition rapidly grew worse, all symptoms increasing in severity and the dyspnea became intense (respirations, 60). The leucocyte count reached 89,000. The septic condition was then believed to be due only to a pyogenic infection of the aortic valves. Death occurred on the evening of January 7.

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* *Read before the C* *une 4, 1904 xlii, 1492.*
emy of Medicine of Clev

Autopsy.—This revealed a large mass of fleshy, vegetative excrescences on the aortic valves, about the size of the end of the thumb. When these were removed for the purpose of making sections, a considerable amount of thick, yellow pus exuded from beneath the leaflets. Both pleural cavities were almost entirely obliterated by dense adhesions, undoubtedly the result of a pleuritis following the previous attack of "typhoid-pneumonia." The liver and spleen were both enlarged and congested, the latter organ showing evidences of amyloid degeneration. Cultures were made from the pus obtained from the aortic lesion and from the chancroid, and the same organism (*Staphylococcus pyogenes aureus*) was isolated in pure culture from both localities. Stained sections of the diseased valves showed numerous purulent foci.

The fact that the chancroid was the only perceptible abrasion on the body surface, the isolation of the same organism in pure culture from both places, and the sudden onset of the septic condition following the chancroidal infection, all seem to indicate that the malignant endocarditis was the sequel of the venereal infection.

U. S. Naval Hospital.

INTESTINAL RESECTION WITH END-TO-END ANASTOMOSIS BY PARKER-KERR METHOD: RECOVERY

SCOTT D. BRECKINRIDGE, M.D.
WASHINGTON, D. C.

Patient.—A colored man, aged 31, was brought into Providence Hospital by Dr. Scott, of Anacostia, Dec. 5, 1908, for immediate operation for a strangulated left inguinal hernia, the strangulation being of about twelve hours' duration.

Operation.—The hernia was exposed and the sac incised in the usual manner, the contents consisting of twelve inches of gangrenous small intestine and a small portion of the omentum which was adherent to the bottom of the sac. The intestine failing to react to the application of hot saline solution, the narrow clamps adopted by Parker and Kerr[1] in their work were applied transversely to the axis of the intestine, one inch outside of the gangrenous portion, and resection performed. A Cushing continuous right-angled suture (the "basting-stitch" of Parker and Kerr) was then applied over the clamps; the clamps were withdrawn, and the "basting-stitches" drawn taut, perfect invagination resulting. End-to-end anastomosis was then performed by means of a silk continuous Lembert suture, reinforced by two or three interrupted Lembert stitches of the same material. The "basting-stitches" were then cut short and withdrawn without the slightest difficulty. The line of anastomosis was rolled between the thumb and finger to open the lumen and a portion of the intestinal wall invaginated through the anastomosis to test its patency. The intestine was then returned to the abdominal cavity and the wound closed.

Postoperative History.—The patient vomited once after the anesthetic and at no time suffered from distention or from any disturbing symptom. His temperature and pulse reached normal on the third day and he made an uneventful recovery, being discharged well a little over three weeks after the operation.

I place particular emphasis on the perfect invaginating action of the "basting-stitches" and the perfect ease with which they were withdrawn after the completion of the anastomosis. This "closed" method is undoubtedly cleaner and, in my opinion, simpler than the ordinary methods by use of clamp and suture, or Murphy button.

A PERMANENT APPENDICULAR VESICO-CECAL FISTULA

R. CADWALLADER, M.D.
SAN FRANCISCO

The following case report shows one result of appendicitis:

History.—A girl, aged 20, was brought to me with the following history: She was the child of healthy parents, a normal baby with a normal history. She had had the usual diseases of childhood. When she was about eight I treated her for persistent bed-wetting. The usual remedies gave little benefit, and, while my records are now lost, I remember telling her mother that I thought it would end at puberty. There was no congenital malformation of any kind. Menstruation began when she was eleven in a perfectly normal manner and, as expected, the enuresis ceased. Soon after this, when about 12 years old, she noticed that a considerable quantity of mucus and pus was passing in the urine at times, with soreness of the bladder. This was more marked when the bowels were loose. With this there was for years a history of colicky pain in the abdomen, but at no time did it confine her to bed or simulate an acute attack of appendicitis. About three years ago this extraneous matter was found to be fecal in nature and is thought by her to have been occasionally passed for the greater part of her life. It was never constant and was usually the seeds of fruit, husks of grain, mucous and brown colored debris. It was not always of fecal odor. At times there was the passage of gas with the urine, of decidedly fecal odor and considerable noise, and she feels sure that several times there was urination from the bowel. With this history she was sent to me for operation.

Diagnosis.—I will pass quickly over the many tests by which I tried to establish all this as true. Inflation of the intestine and bladder were without success. Iron by mouth could not be found in the urine nor did methylene blue escape by the rectum. For days nothing would appear and then the catheter would bring blackberry seeds, pearl barley, or striped muscle fibers in accord with her diet. I used the Kelly cystoscope and made out the ureteral openings and most of the bladder wall to be normal and uninflamed. Dr. John C. Spencer was called in and we used the Nitze instrument and satisfied ourselves that there was nothing abnormal in base or walls except a spot on the fundus that might be an opening. Here was a dark patch or crater at one spot of the border of which was some inflammatory tissue. It was not conclusive but I decided to clear up the mystery by a laparotomy and even open the bladder if nothing was found in the abdomen to account for the symptoms.

Operation.—On January 3, with the assistance of Dr. Campbell Ford, I opened the abdomen and found first a large adhesion of the ileum to the fundus which was carefully separated but which did not communicate with the bladder. Under this we found the tip of the appendix adherent to the bladder at about the peritoneal reflexion over the uterus in the median line. The tip was embedded in the wall and seemed to form a part of it. It was about 7 cm. long and uniform in diameter. The succeeding steps were simple. A cuff of peritoneum and muscle was turned from either end and the median part cut away; the stumps were disinfected, the cuffs were ligated over the stumps and the abdomen was closed with the Ford stitch. Recovery was absolutely without interest and the patient left the bed a week later.

Were it not for the adhesion found I should be inclined to consider the condition congenital, but in the only other case like this, that of Keen's, I find that he mentioned the fact that the appendix seemed to be embedded in the wall—"soldered" is the term he uses. It is certainly remarkable that there should be no history of any pain in the right lower quadrant.

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[1] Parker, Edward Mason, and Kerr, Harry Hyland: Intestinal Anastomosis without Open Incision, by Means of Basting-Stitches, Johns Hopkins Hosp. Bull., May, 1908.

There have been many cases of perforation into the bladder, but these are the only two I can find in which the fistula was permanent. When such is the case there must be a history of gas escaping from the bladder. I have waded through the weary lists of pneumaturia, perisyphilitis and its complications and rupture of appendicular abscesses into the bladder, made more difficult by the various headings authors have reported them under, but find all spontaneously closed. The following articles are of interest in connection with the subject:

Bristow, A. T.:[1] This patient had not been operated on when the case was reported. The fistula has persisted for years and may be due to rupture of an abscess. The following letter has just been received:

> Brooklyn, N. Y., Feb. 3, 1909.
>
> The patient whose case I narrated at the last meeting of the American Surgical Association still refuses operation, but the local symptoms still continue much the same, that is to say, there is the same evidence of communication between the bowel and the urinary tract . He has had one attack of fever since the first of the year * * * but is unwilling to submit to treatment which would cure him. I can not, therefore, say anything about the origin of the fecal fistula in this most puzzling case.
>
> A. T. Bristow.

Keen, W. W.:[2] "*A case of appendicitis in which the appendix became soldered to the bladder, producing a urinary-fecal fistula.*" This patient was a man who at twenty-four passed seeds, pus and intestinal debris. The tip of the appendix was incorporated into the bladder wall, as was mine, and the treatment was by turning down a cuff of the peritoneum and excision in much the same way. This fistula was a permanent one as in my case for some years prior to operation.

Kelly, H. A., and MacCallum, W. C.:[3] "Pneumaturia." This is an exhaustive list to that date of all cases of pneumaturia, and no doubt many of the early ones are vesicointestinal, but I can find none of them due to adherence of the unbroken appendix by its tip to the bladder.

Stone, I. S.:[4] "Perforation of the Urinary Bladder by an Appendiceal Abscess." In this valuable article Stone reports a case in which the tip was adherent and perforated. He also collates some thirty similar cases, but the fistulas, as in his own case, closed spontaneously. Therig's two, reported by him, were not permanent.

Appuhn, Maximilian Henry:[5] "Contribution à l'étude des complications de l'appendicite." This was a case reported by Jewell, Sept. 25, 1895, before the Surgical Society of *Christiania*. The patient was a girl of 17, who for three years passed fecal matter.

Rupture of an appendiceal abscess into the bladder is common. Rupture of the appendix after adherence is not infrequently reported. But adherence, rupture and a persistence of the vesicocecal fistula by the appendix is so uncommon that Keen's case alone, and Bristow's possibly, are all I can find in literature besides my own, with the reservation that some old cases in Kelly's list under pneumaturia may be similar ones.

240 Stockton Street.

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[1] Tr. Am. Surg. Assn., 1908, xxvi, 360.
[2] The Journal A. M. A., May 7, 1898, xxx, 1108.
[3] The Journal A. M. A., Aug. 20, 1891, xvi, 375.
[4] Annals of Surgery, 1904, xxxix, 265.
[5] Thesis, Nancy, 1903.

Correct Language.—Correctness of onomatology is even more an index of character in science than in daily speech. In medical onomatology, as in ordinary speech, wanton incorrectness is an offence against both truth and good manners. The uncultured mind revels in uncouth expressions. Incorrect medical onomatology is on a par with slang in ordinary speech; the use of either betrays ignorance or a mind devoid of fine feeling.—A. Rose, in *Med. Rev. of Rev.*

Therapeutics

VERATRUM VIRIDE

While a cardiac depressant seems less and less frequently needed in this age of high tension and heart tire, still there is occasionally a positive indication for lowering the blood pressure. It is acutely indicated in puerperal eclampsia, and is sometimes continuously indicated in arteriosclerosis and chronic interstitial nephritis, or Bright's disease.

We have passed through the various stages of beginning the treatment of acute inflammations or infections (as typified by pneumonia) with first severe, and then gradually less and less severe, depleting measures Venesection, tartar emetic, calomel, aconite, veratrum viride and, finally, coal-tar products have all had their acme of use for this purpose. The physician now hesitates to do anything, however apparently advisable, toward aborting or diminishing the intensity of the first symptoms of an acute inflammation, lest the sooner or later cardiac depression may be hastened or developed by the treatment used. It is quite possible, however, that a judicious lowering of the blood pressure is often advisable, and it becomes a question which is the safest way to reduce this pressure: by profuse catharsis, by judicious venesection, by one or two doses of a coal-tar product, or by aconite. The activities of veratrum viride have been forgotten, and have been repudiated by many pharmacologists, perhaps unjustifiably so.

The selection of a drug to lower blood pressure in acute inflammations, when the type of the disease is sthenic, is certainly a subject for careful consideration, and that method should be used which will cause the least cardiac debility or weakness. There can be no question of the advantage and necessity of a complete emptying and cleansing, so to speak, of the alimentary canal. It is quite another question whether it is advisable to cause a series of profuse watery stools. There also can be no question that a dose or two of a coal-tar antipyretic, when the temperature is very high, to cause its diminution and to promote perspiration, is advisable. Later in the disease cold water treatment is, of course, the proper method to use. While the most active and temporarily efficient vasodilators are the nitrites, their action is short-lived and oftentimes unsatisfactory in acute inflammations. The lowering of the blood pressure with aconite of necessity carries with it some weakening of the cardiac muscle, and while a few doses may be advisable, a longer action of this drug is generally inadvisable. Consequently, it may be well to review clinical observations, the value of which is sometimes greater than laboratory research on healthy animals.

Such a review of the clinical findings from the action of Norwood's tincture of veratrum viride is presented to us by Dr. J. S. Todd, Atlanta, Ga., in the *Therapeutic Gazette*, Feb. 15, 1909.

He deplores the present lack of use of this drug, which he considers very useful, and states that it is largely a vasodilator and does not severely depress the heart. If a small dose of morphin, 1/20 of a grain, or half a teaspoonful of paregoric, is given with each dose of veratrum, he states that nausea, vomiting, diarrhea, profuse sweating, giddiness or collapse will rarely take place. "The pulse can be kept soft and at about 65 or 70," and the temperature kept low with the proper administration of veratrum viride. He advises the use of

0.10 c.c. (1½ minims, or 3 ordinary drops) of Norwood's tincture of veratrum viride, and he would administer this not oftener than once in three hours. He says that the dose of veratrum viride is often too large, and, unless it is administered in puerperal convulsions, the dose should be kept as above. In the latter condition he would give 0.30 c.c. (5 minims, or 10 drops) hypodermatically.

As opium will prevent the unpleasant symptoms from veratrum, so, says Todd, "is veratrum a valuable antidote in opium poisoning."

Many times in aortic insufficiency or regurgitation, in arteriosclerosis, and in Bright's disease (cardiovascular-renal disease) digitalis may be indicated, but, as it causes increased blood pressure, it is either deemed inadvisable or must be combined with some vasodilator. To meet this indication Todd advises the use of a combination of digitalis and veratrum viride as follows:

R.	gm. or c.c.		
Strychninæ nitratis	'03		gr. ss
Pulveris digitalis	2		
Pulveris scillæ	2	or	āā, ʒss
Pulveris zingiberis	4		ʒi
Tincturæ veratri (Norwood)	3		m. xlv

M. et fac capsulas, 30.
Sig.: A capsule as directed.

Todd advises the administration of one of the above capsules every four, six, eight or twelve hours, as needed.

The editorial department of the *Therapeutic Gazette*, Feb. 15, 1909, calls attention to the value of veratrum viride in puerperal eclampsia, and quotes the results of Mangiagalli, of Milan, in the use of this drug in this disease. Mangiagalli's percentage of mortality since he has used veratrum viride in eclampsia is most satisfactory, the mortality having been reduced from 23 per cent. to 7 per cent.

He uses the best fluid extract of veratrum viride, and administers it hypodermatically in doses of from 0.30 c.c. to 0.60 c.c. (5 to 10 minims), and repeats the dose as often as the blood pressure becomes too high, the blood pressure being accurately determined by the sphygmomanometer. He considers another dose indicated when the pressure exceeds 160 millimeters. The pulse should, if possible, be kept below eighty beats a minute, but if the pulse becomes rapid and small and arterial tension low, veratrum viride is contraindicated.

It is not considered that veratrum viride has any antagonistic action on the toxins of eclampsia, but the benefit derived seems to be entirely due to a lowering of the arterial pressure, and this is evidently an important factor in causing death in puerperal eclampsia. In other words, the high blood pressure may be the cause of cerebral edema and exudate, and thus the cause of convulsions and coma.

USES OF CALCIUM SALTS

Dr. Arthur P. Luff, in the *British Medical Journal*, Jan. 30, 1909, considers Sir Almroth Wright's suggestion, that a deficient blood coagulability may not lead to actual hemorrhages, but to "serous hemorrhages" or exudates, to be founded on fact. Examples of such serous transudates "are urticaria, chillblains, edema of the feet and hands not due to circulatory or kidney lesions and some forms of headache." All of these conditions may be improved by the administration of a calcium salt.

The lymphatic type of headache due to diminished coagulability of the blood "occurs more frequently in women than in men, and is manifested by a dull, heavy ache in the frontal region, and sometimes by a throbbing in the frontal and temporal regions." This kind of headache is most frequently present on the patient's awakening in the morning and diminishes or disappears after the patient has been up and about a shorter or longer time. Such patients are likely to show mental and physical lassitude, and a tendency during the day to slight edemas in pendent portions of the body.

The administration of calcium salts to patients who suffer from this kind of headache is generally followed by amelioration, while it has been shown that the administration of potassium citrate to such patients, by diminishing the coagulability of the blood, increases the headache.

Patients who are subject to chillblains and more or less constantly have cold hands and feet, with perhaps some slight edema, Luff shows are benefited by calcium. The same he has found true of patients who suffer with boils, urticaria and flushing of the face, provided that such patients concomitantly have cold hands and feet, which he evidently considers an indication for the calcium treatment.

He has had some success in the treatment of hemoglobinuria, and has caused some benefit in aneurism by the administration of calcium.

He has also benefited patients with edema of the feet which was not of circulatory or renal origin, and this after various other treatments had failed.

Luff always uses calcium lactate, and says it is important that it should be fresh, as it decomposes after long keeping. "The indication of its good condition is that it should form a clear, or nearly clear, solution in water. A definite white precipitate in its solution is an indication that the salt has undergone some change and should not be used." He administers it as follows:

℞.	gm. or c.c.		
Calcii lactatis	10		ʒiiss
Tincturæ capsici	30	or	m. v
Aquæ chloroformi, ad	150		fl. ʒv

M. et Sig.: A tablespoonful in water, three times a day, one hour before meals.

Luff considers it important to give the medicine about an hour before meals, "as this allows absorption of the salt to take place prior to the introduction of food into the stmoach, and thus prevents the precipitation of the calcium by the phosphates and possibly other constituents of the food." He gives the calcium lactate continuously for six weeks. If constipation is caused by it, he uses senna as a laxative, and thinks saline purgatives should not be administered on account of "their precipitant action on calcium salts." Occasionally some months after the cessation of the treatment slight relapses occur, but these are quickly overcome by the readministration of calcium lactate for a period of one or two weeks

Luff reports the results of giving the above calcium treatment to 121 patients, and without seeing any undesired symptoms except in three instances. One of these patients showed a slight venous thrombosis in the right calf; the second a slight numbness of the arms and legs, associated with tingling, and the third complained of noises in the ear and deafness. In each of these instances the unpleasant symptoms rapidly subsided after the administration of the calcium salts ceased.

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[*For other information see second page following reading matter*]

SATURDAY, APRIL 3, 1909

SOME NEWER IDEAS CONCERNING GOUT

When Garrod in 1848 demonstrated that the blood of the gouty contained an abnormally high quantity of uric acid, he accomplished one of the greatest advances that has yet been made in our understanding of the pathology of this disease. Although the analytic methods available at that time were far from faultless, yet the main point of his research has been completely verified, especially by Magnus-Levy, who found from three to six milligrams of uric acid per hundred cubic centimeters of blood in gout, while normal blood contains, at the most, doubtful traces of uric acid except in a few special conditions. Within recent years improved analytic methods have helped greatly in the study of uric acid metabolism in health and disease, and we have learned in particular that the several stages in the production of uric acid from its original source, the nucleoproteins, are accomplished only through the successive actions of several distinct intracellular enzymes.

Among the most successful investigators in this field are Schittenhelm and Brugsch,[1] who have worked not only with normal animal and human material, but have also applied their results and methods to the study of gout. They have found that the blood of patients with typical gout contains always a demonstrable quantity of uric acid, even when the food has been free from purins for weeks and months, while blood from normal individuals on purin-free diet contains no uric acid whatever. This indicates that in gout there is a deep-seated disturbance in metabolism so that even the endogenous purins, arising from the nucleoproteins of the tissues themselves, can not be destroyed or removed from the blood in the normal way. This accumulation of uric acid in the blood might depend on either defective uric acid lysis in the individual's tissues, or on failure of elimination by the kidneys. As to the latter possibility, it is found that in interstitial nephritis there is also demonstrable endogenous uric acid in the blood, but the amount varies according to the condition of functional activity of the kidneys, while in gout the endogenous uric acid never exceeds a certain maximum amount (about 0.003 per cent.). Furthermore, if retention by defective kidneys were the cause of the uricacidemia of gout, then the amount of uric acid in the blood might be expected to show a steady rise rather than maintaining a constant level.

Ebstein recognizes two forms of gout, one a primary arthritic gout and the other a primary renal gout, and Brugsch and Schittenhelm[2] consider that their studies clear up the relationship of these two forms. They would limit the term "gouty diathesis" to the condition of uricacidemia persisting with a purin-free diet, which must always be present in order that the typical gouty attacks may occur, but which may exist for an indefinite period without typical acute attacks. It is not necessary that the blood be oversaturated with uric acid in order to have the deposition of uric acid in the cartilage of the joints, as has been almost universally assumed, for it has been found by Almagia, and confirmed by Brugsch and Schittenhelm, that cartilage has a peculiar affinity for uric acid and urates and can extract these substances from dilute solutions by some physical adsorption process and cause their precipitation within the tissues. The long-continued presence of free uric acid in the blood in gout furnishes just the necessary conditions for its accumulation and precipitation in the cartilage. In the retention of uric acid which results from nephritis the periods during which uric acid is present in the blood are generally too brief to lead to precipitation in the cartilage, as this process requires much time for development before it reaches a serious degree. But in those occasional cases of contracted kidney in which there is a protracted retention of uric acid the anatomic results are quite the same as when the uricacidemia is due to metabolic deficiency, for in either case uric acid will accumulate and precipitate in the same tissues with exactly the same effects, namely, acute attacks of gout.

Clinically, however, the renal gout is usually distinguished by the predominance of renal and cardiovascular symptoms; but it is, of course, possible to have cases in which the two forms coexist, or, more frequently, in which a simple metabolic gout becomes complicated by interstitial nephritis. Ebstein's division of gout into renal and arthritic gout is, therefore, not exactly correct, in that we may have arthritic attacks which are due to retention of uric acid by diseased kidneys, and it would be better to distinguish between renal gout and metabolic gout as indicated by Brugsch and Schittenhelm. The formation of uric acid calculi in the urinary passages should not be included among the manifestations of the uric acid diathesis, for the precipitation of uric acid here depends chiefly on chemical and physical conditions in the urine rather than on the amount of uric acid in the blood; indeed, the retention of uric acid characteristic of the gouty would rather hinder than favor its precipitation in the urine.

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[1] Ztsch. exper. Path. u. Pharmakol., 1907, iv, 438.

[2] Zentralbl. f. d. ges. Physiol. u. Path. d. Stoffwechs., 1907, ii, 850.

A LAY VIEW OF MEDICAL QUACKERY

Probably no lay publication in Europe has done more to expose quackery and fraud than has London *Truth*. Henry Labouchere, its editor, by his aggressive attitude toward frauds and humbugs, medical and otherwise, has been involved in numerous libel actions, from which, in spite of the rigid libel laws of Great Britain, he has almost invariably come off victor.

He took occasion recently to commend the new Quackery Prevention Act[1] of New Zealand, and in his article expresses some opinions on the subject of medical quackery that will meet with the approval of every physician. Clause 5 of the act deals with the relation of the publisher to quack advertisements:

> If any person causes any statement to be inserted in breach of this act in a newspaper printed and published in New Zealand, the printer, publisher and proprietor of that newspaper shall severally (and without excluding the liability of any other person) be deemed to have published that statement in breach of this act, and shall be liable for an offence against this act accordingly.

In discussing this admirable clause the editor of *Truth* says: "Here we have a recognition of the principle, for which I have always contended, that if an offence against the law is perpetrated by means of a newspaper advertisement, the nature of which is evident, or reasonably open to suspicion, on the face of it, the publisher should be held equally guilty with the advertiser, and that the proprietor—the real principal in the publication—should be deemed a publisher for this purpose."

Such a law, and especially such an interpretation of it, would find small favor, we fear, among the newspapers of this country. In fact, the strict enforcement of such a law would put a large number of periodicals out of business. In explaining what he means by the word "quackery" as applied to medicine, Mr. Labouchere says: "What I mean is fraud carried out by downright lies or deceitful misrepresentations. This is evidently what the New Zealand legislature means, and I take it that this is what most people mean when they denounce the evils of medical quackery. The root of most of these evils is this: that misrepresentations or exaggerations, which the law, acting on the *caveat emptor* principle, refuses to regard seriously when made in connection with an ordinary purchase and sale of goods, become productive of most serious mischief when applied by unscrupulous traders to the sale of remedies for the treatment of disease. In this case the trade is mainly carried on at the expense of ignorant and credulous people, and carried on with results which may be highly dangerous to life and health. It has always been the policy of the law to curb the activities of those who prey on the ignorance and credulity of their fellow-creatures, and there is a special reason for doing so when the victims are not only robbed of their money but exposed to the risk of grievous bodily harm. This, and this alone, is the ground for strengthening the criminal law against the advertising quack. There can be no reasonable doubt as to the extent of the evils that result from the free hand which these harpies at present enjoy. . . . That these people, and all others of the same class, do infinite harm, extending far beyond the mere picking of the pockets of fools, is not open to question. They help materially to fill our hospitals and cemeteries, and they would do still more in this direction if it were not that a large proportion of the people who waste their money over quack remedies have either nothing at all the matter with them, or nothing which will not be speedily cured by a dose of aloes or calomel. This matter ought really to be regarded primarily from the point of view of public health."

The clear-cut principles here expressed can not be gainsaid; the credulous and ignorant sick have a right to be protected against themselves. There exists, however, a condition as well as a theory, and while acquiescence to abstract principle is obtained with comparative ease, to get a concrete change of conduct based on such principles is a much more difficult proposition. It is to be hoped that public opinion will in time be sufficiently aroused to the evils of medical quackery to make possible in the various states the passage of laws similar to that of this admirable New Zealand act. Whatever the newspapers may sacrifice financially by such a law they will more than make up in respectability; as for the quack's loss, it will be the public's greatest gain.

THE RELIEF OF DR. CARROLL'S WIDOW

In Dr. Goldberger's excellent monograph on yellow fever the work of the Army board in Cuba, headed by Major Walter Reed, is summarized in a single pithy sentence. Referring to the demonstration of the transmission of yellow fever infection by mosquitoes, he says that it "converted a discredited hypothesis into an established doctrine." The positive demonstration of this fact has opened up a wide field of sanitary accomplishment. The epoch-making victory over yellow fever of Gorgas in Havana, his sanitary regeneration of the Isthmus of Panama, White's brilliant results in the New Orleans epidemic of 1905, and Kean's recent extensive campaign in Cuba are all the direct results of the confirmation of Finlay's theory by the work of Reed, Lazear, Carroll and Agramonte in 1900. With a single exception, the members of this gallant band have all perished in the prime of their vigor and usefulness. Dr. Agramonte, the sole survivor, is a distinguished member of the faculty of the ancient University of Havana and a valued adviser of the sanitary department of Cuba.

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[1] Section 2 of the act provides: "Every person commits an offence who publishes or causes to be published any statement which is intended by the defendant or other person to promote the sale of any article as a medicine, preparation, or appliance for the prevention, alleviation, or cure of any human ailment or physical defect, and which is false in any material particular relating to the ingredients, composition, structure, nature, or operation of that article, or to the effects which have followed or may follow the use thereof . . . "

The rewards which these soldiers of science received for their work during their lives amounted to little or nothing. The value of their work to humanity and civilization is beyond estimate. Yet all of them, owing to the meager pay of the army officer, left their families without adequate means of support, although their widows are now in receipt of pensions which keep the wolf from the door, but which leave no margin even for Spartan luxuries. On one family in particular the burden has been heavy. Major James Carroll was the first volunteer to submit to an experimental inoculation from an infected mosquito and to suffer an attack of yellow fever. This illness was so severe as to endanger his life. As a result of it he developed a dilated heart, which was the ultimate cause of his death. He died a martyr to science for the benefit of humanity, leaving a widow, an aged mother and seven small children practically unprovided for. His widow is now threatened with the loss of her home by the foreclosure of a mortgage and is in need of immediate assistance. Attention is called to an appeal on page 1122 of this number of The Journal setting forth the facts in detail and asking for contributions for the relief of this deserving family.

The experimental work of Carroll and his associates has forever banished yellow fever epidemics from civilized countries. The saving in lives and treasure for present and future generations is beyond all calculations, yet the widow and children of one of the men who made this possible are in danger of losing their home. Surely, if the American public does not realize its enormous debt to this man and his offspring, the medical profession will not turn a deaf ear to the plea for assistance made in behalf of his helpless and dependent family.

ANIMAL EXPERIMENTATION AND TUBERCULOSIS

The present general movement against tuberculosis, one of the most hopeful if not indeed the most promising of all the modern efforts for the temporal salvation of the human race, owes much to animal experimentation. This is ably set forth by Dr. E. L. Trudeau,[1] who says, without any qualifications or reservations whatever, that "everything that has a direct bearing on the prevention of tuberculosis, everything that has changed mankind's attitude toward it from one of apathy and hopelessness when the infectious agent which produces tuberculosis was unknown and the disease was thought to be inherited and always fatal, to the growing hope of its ultimate conquest . . . we owe to animal experimentation." We quote his exact words because he speaks with authority and his words carry greater weight than those of almost any one else in this country on this subject.

It was animal experimentation that first showed that the disease was an infectious one, that it was communicable and therefore preventable, and which paved the way for Koch's discovery in 1882 of the tubercle bacillus. The outcome of this discovery has been all that we now know and are constantly learning in regard to the tubercle bacillus, its virulence and toxins, its routes of invasion of the human system, and the methods of defense we possess in the complex processes of actual and artificial immunity, and all our hope of applying them to the protection of human beings and the cure of the disease is in the knowledge obtained in this way. In his own experience, Trudeau says, animal experimentation has given him the basis for all the practical results he has obtained. In 1886 he was able to demonstrate on animals the influence of a favorable environment on the disease, and this increased his confidence in the influence of the same conditions on the human subject and led to the establishment of the Adirondack Cottage Sanitarium, the practical results of which are before the world. In 1893 animal experimentation also led him to the conviction that the production of artificial immunity against tuberculosis, which had been looked on as impossible, was not as unattainable as had been supposed, and since that time the experience of experimenters in other lands has only strengthened and confirmed this belief, and this is not the end. Even former sceptics are now admitting that the conquest of tuberculosis, like that of smallpox, diphtheria, rabies, anthrax, etc., by some safe process of artificial immunity, is no longer a visionary goal, but that, with more knowledge of the infecting agent, its poisons and methods of attack, and of the methods of calling into action the defensive resources of the human organism, this conquest may in time be attained, but only through scientifically directed animal experimentation.

Dr. Trudeau points out a fact well known to physiologists, that inoculation experiments entail no greater suffering to the animal than the prick of a hypodermic needle and then a painless death, if it be killed, or death from tuberculosis, to which it is always liable, if it be allowed to live. The shortsighted unwisdom of the objectors to this work is self-evident. They would trust their families' welfare and comfort to medical science unguided by this great means of saving life, experiments on the lower animals, and yet object to the slightest apparent suffering of rabbits and guinea-pigs. Those who are trying by legislation to prevent animal pain, or what they think is pain, do not appreciate the possible sufferings to mankind that have been saved by these methods, or are blinded by fanatical zoophilism or are wilfully in ignorance. If we can save future generations from the curse of the great white plague, even partially, would the sacrifice of the lives of hundreds or thousands or any number of experimental animals be too high a price to pay? As Ex-President Andrew D. White has said, one would sacrifice thousands of fleas for the mere comfort of one faithful dog, and would it not be equally proper to sacrifice any number of dogs for the life and comfort of the human race? Dr. Trudeau's words should carry the more weight since no one can question his philanthropy, and his arguments should be convincing to the common sense of unprejudiced men.

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[1] The Jour. of the Outdoor Life, March.

Even if the absolute conquest of tuberculosis is beyond our reach, if there will always be here and there in the animal kingdom some sources of infection, and even if it is to a certain extent inheritable, as some authorities claim, it can be robbed of its terrors and occur only as an unfortunate exceptional accident in the human species. This can only be brought about through a continuation of the same methods of experimentation and research that have been so fruitful in the past.

RECENT MODIFICATIONS OF THE WASSERMANN REACTION

The enormous amount of work that has been done on the Wassermann reaction appears to have established conclusively its value as a diagnostic means in syphilis. For, while the reaction can not be considered as specific in the bacteriologic sense of the word, as was first believed on theoretical grounds to be the case, it is apparently characteristic; and the few other diseases, principally the other spirochete and the trypanosome infections, that give the reaction, are of such rare occurrence in the temperate zones as to be practically negligible in this connection.

Unfortunately, the test as at present used is altogether too complicated to be available for the general practitioner, and considerable simplification will be necessary before it can be placed on the plane of, for instance, the agglutination reaction in typhoid.

Studies of the reaction have recently been made from an analytical viewpoint, and the results would seem to indicate that the required simplification is quite likely to be attained.

In the reaction, as used at present, five constituents are required, namely: (1) *antibody—the serum to be tested*, previously heated to destroy its complement; (2) antigen, so-called—usually extract of syphilitic liver or of guinea-pig heart; (3) complement—normal guinea-pig serum; (4) hemolytic amboceptor—the serum of a rabbit previously sensitized to sheep corpuscles, the complement being destroyed by heating; (5) a suspension of sheep corpuscles.

Schatiloff and Isabolinsky,[1] working on the antigenic constituent of the reaction, have compared extracts of luetic livers with those of various normal organs of different animals. They find that alcoholic extracts of guinea-pig heart are only slightly less efficient than are those of luetic liver, and, that, therefore, this substitution is apparently without effect on the diagnostic value of the reaction.

Stern,[2] investigating the complement constituent, has obtained results that apparently surpass the accuracy of the usual method, by utilizing the complement already present in the (human) serum serving as antibody. Stern has failed to substantiate the claim previously made that the complement of human serum is too variable to admit of its use.

Finally Noguchi,[3] who has had wide experience with the test and all its modifications, suggests a simplification so sweeping that it does away with practically all the technical difficulties and puts the test within reach of any well-trained clinician. Briefly stated, Noguchi's modification consists in having the antihuman hemolytic amboceptor, the guinea-pig complement, and the antigen in dry form so that they can be kept almost indefinitely. This is accomplished by saturating filter paper with these substances when in solution, drying it, and furnishing it in small slips each representing a standardized amount of reagent. This means that the suspension of sheep's blood corpuscles and the patient's serum are all that the physician himself needs to furnish. The test by this dry method seems quite as reliable as the original more complicated one. We refer to Noguchi's article for details.

GRANULATION OF THE ERYTHROCYTES

Of the recent contributions to hematology some of the most interesting and suggestive work has been done by a group of French observers—in particular Drs. Widal, Chauffard, Brulé, Fiessinger and Abrami — concerning certain staining reactions of the red cells. This work is reviewed by Fiessinger and Abrami[4] and deals largely with a new variety of granules occurring in the erythrocytes, which appear to be entirely distinct from the "basophilic granules" first described by Askanazy.

These granules can not be stained in the fixed preparation but are brought out by staining the dried and unfixed blood film with Pappenheim's reagent (pyronin and methylene green) or by allowing a drop of one of the basic blue stains[5] to work its way under a cover glass preparation of fresh blood. Stained in this manner, certain of the erythrocytes present distinct minute granulations which in some instances are connected by a very fine reticulum. Free granules are sometimes found in the blood, when they are connected by faint basophilic strands and form little chains or a fine network. In normal individuals these granules are sometimes found in as many as 3 per cent. of the erythrocytes, while for the first few days of life they are rather abundant.

An excess of red cells showing this peculiar formation is found in certain pathologic conditions, particularly in some of the intoxications and in the anemias. It has been observed in a marked degree in hemolytic icterus and its presence is said to offer a valuable differential sign in distinguishing this condition from jaundice of obstructive origin. In anemia there seems to be no absolute relation between the occurrence of these granules and the degree of the anemia. Experimental evidence tends to show that it may be regarded as an evidence of regeneration. The phenomenon bears some relation to polychromatophilia, though all cells showing this peculiar staining reaction are not granulated. Fiessinger and Abrami suggest that polychromatophilic cells, "stippled cells" (*erythrocytes ponctués*), and cells showing this newly described variety of granules (*hématies granuleuses*) may represent different stages of one and the same regenerative process. Until more conclusive evidence is offered as to the nature of the ordinary basophilic granules this hypothesis will not be accepted by many hematologists who look on these granules as an evidence of degeneration.

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[1] Ztschr. f. Immunitätsf. etc., 1909, i, 316.

[2] Ztschr. f. Immunitätsf., 1909, i, 422.

[3] Jour. Exp. Med., March, 1909.

[4] Rev. de Méd., 1909, No. 1.

[5] Unna blue in four times its volume, or azure blue in ten times its volume of physiologic salt solution, is *recommended*.

FOR NATIONAL HEALTH BUREAU

The newspapers announce that the President has requested Surgeon-General Wyman, of the U. S. P. H. & M.-H. Service, to draw up a tentative plan for the consolidation under one bureau of all the agencies exercised by the federal government for the preservation of the public health, and that on the recommendations of Dr. Wyman and those of other eminent physicians the President will base his recommendations to Congress in his message next fall. That Mr. Taft has been deeply interested in public health problems and that he favors the consolidation of existing health agencies in a single bureau has been shown by his utterances in the past. In his speech of acceptance he plainly announced his views on this subject. His speech at the University of Pennsylvania on Washington's birthday, just before his inauguration, emphasized his deep interest in public health problems. His instructions to General Wyman constitute the first practical step toward the consummation of a definite plan and show that the question is being given consideration by the President commensurate with its importance. It is gratifying to know that measures for the preservation of the public health and the conservation of the lives of the people are being carefully considered by our chief executive as one of the important duties of the administration, and we may reasonably anticipate that in his annual message next fall the need of adequate legislation along this line will be properly placed before Congress and the nation.

VASECTOMY FOR CONFIRMED CRIMINALS AND DEFECTIVES

The sterilization of criminals and defectives by vasectomy is becoming a live question in many directions. This method of combating the transmission of criminality and other mental defects—a peril that has assumed such proportions as to arouse the attention of most civilized countries—has now been in use in Indiana for two years, and recently has been legalized in Oregon. The matter has been taken up by the Chicago Society of Social Hygiene, with a view to public education thereon and the introduction of some similar measure in the state of Illinois. There is a bill (No. 249) now in committee of the Illinois senate which appears to cover the ground, though the words "or castration" might with advantage be omitted, as tending to arouse needless opposition. The state's concern in the matter is limited to the prevention of procreation of hereditarily defective offspring, and this appears to be perfectly effected by the safe, harmless, non-mutilating operation of vasectomy. There are doubtless many who realize the necessity for some measure that will limit the output of ready-made potential criminals and defectives, who, nevertheless, are strongly opposed to what they consider the barbarous practice of compulsory mutilation, and these will have little fault to find with vasectomy.

Medical News

ARIZONA

Ask Appropriation for Laboratory.—The physicians of Arizona are making a concerted effort for an appropriation for $1,200 by the legislature for a bacteriologic and chemical laboratory at the University of Arizona, especially equipped for tests of milk, water and food.

Hospital to be Enlarged.—General plans have been completed for the new Whitwell Hospital, Tucson, which was recently destroyed by fire. The new building will be a fireproof structure throughout; will be two stories in height, and will contain rooms for thirty-two patients, in addition to two large wards. The accommodation of the hospital will be more than double that of the old building.

Society Meetings.—The annual meeting of Santa Cruz County Medical Society was held in Nogales, March 8, when the following officers were elected: President, Dr. Albert L. Gustetter, Nogales; vice-president, Dr. Paul R. Doran, Patagonia; censor, Dr. William F. Chenoweth, Nogales; secretary-treasurer, Dr. Alfred C. Kingsley, Nogales; and committee on public health legislation, Drs. Adolphus H. Noon and Harry W. Purdy, Nogales.——At the annual meeting of Pima County Medical Association, held in Tucson. Dr. Joseph W. Lennox, Helvetia, was elected president; Dr. Hiram W. Fenner, Tucson, vice-president, and Dr. A. Garfield Schnabel, Tucson, secretary.

CALIFORNIA

Red Cross Chapter Established.—The Los Angeles County Chapter of the California Branch of the American National Red Cross was organized February 18 in Los Angeles. Dr. Rose Burcham was elected president and Rev. Robert J. Burdette, vice-president.

Gift to University.—The University of California has been given $20,000 by Jackson A. Graves of Los Angeles, to be applied to paying off the mortgage on the medical department. In commemoration of this gift the dispensary will be known as the Selwyn Emmett Graves Memorial.

Society Organized.—On March 4, at the invitation of Dr. Osea Perrone, the Italian-American Medical Society of San Francisco was organized. Drs. A. Stephens Musante, Osea Perrone and E. Taussig were appointed to draft a constitution and by-laws. The society is intended for the social, professional and economic improvement of the Italian-American practitioners of San Francisco.

Gifts to Hospitals.—Mrs. R. A. Boyd has given the city of Richmond, Contra Costa county, $17,500, which, with the addition of $7.500 which has already been subscribed, will be used to build the Boyd Memorial Hospital, in memory of her late husband.——The Settlement, Redlands Sanatorium for the Treatment of Tuberculosis, has just received a bequest of $2,000 from the estate of the late David Cotcher.

Hospital Notes.—Plans have been accepted, and contracts will be let, for the construction of the new St. Francis Hospital, San Francisco, to be a four-story modern building, to cost $150,000.——The board of directors of the Peninsula Hospital, Palo Alto, reported at its recent meeting that there was sufficient money in the treasury to carry on the erection of the hospital and construction work will begin as soon as the weather permits.

GEORGIA

Liquor Prescriptions Issued by Physicians.—During February sixteen physicians of Athens issued 56 prescriptions for alcohol, a marked decrease over the preceding month.

Found Not Guilty.—The jury in the case of Dr. Samuel P. Smith, Yonkers, charged with the murder of W. J. Nicholson on July 4, 1907, returned a verdict of not guilty, March 11.

District Society Meetings.—At the annual meeting of the Fourth District Medical Society, held in Columbus, February 16, Dr. M. M. Hallum, Carrollton, was elected president, and Dr. T. Neal Kitchens, Columbus, vice-president, the secretary-treasurer, Dr. Charles A. Dexter, Columbus, holding over for another year.——At the annual meeting of the Seventh District Medical Society, held in Marietta, March 10, Dr. Charles T. Nolan, Marietta, was elected president; Dr. Joseph J. P. Bowdoin, Adairsville, vice-president, and Dr. Harlan L. Erwin, Dalton, secretary. Rome was selected as the next place of meeting.——At the first meeting of the Atlanta Medical Library Association, held in its new quarters, Dr. Michael Hoke was elected president; Dr. Lewis M. Gaines, vice-president, and Dr. George M. Niles, secretary-treasurer. The association has fitted up a reading room in the basement of the Carnegie Library, where members may consult the latest medical books and periodicals. The room is open during the regular hours of the library.

ILLINOIS

Personal.—Dr. George M. Peairs, Joliet, will sail for Vienna May 1.——Dr. Robert F. Hayes, Freeport, one of the oldest members of the local fraternity, fell March 21, fracturing his left femur.

General Vaccination.—On March 17, 2,400 patients, attendants, members of the administrative staff, nurses and physicians at the Illinois General Hospital for the Insane, South Bartonville, were vaccinated by order of the superintendent. Two cases of smallpox had developed at the institution.

Widespread Areas of Smallpox.—According to reports to the state board of health, there is a widespread epidemic of smallpox areas including northeast Fulton and southwest Peoria counties. The disease first made its appearance in Canton, Pekin and Glasford, and spread from there to adjoining localities.

Chicago

Name School for Master-Surgeon.—The Board of Education has decided to name the new high school to be erected on the north side, "The Nicholas Senn High School."

Provisional Donation to Hospital.—William Deering has announced that he will give $55,000 to Wesley Hospital, provided a similar amount is raised by the institution.

Personal.—Dr. and Mrs. E. Fletcher Ingals have returned from Florida.——Dr. Joseph C. Beck has been elected professor of otology, rhinology and laryngology in the Chicago Eye, Ear, Nose and Throat College.——Dr. Alexander H. Ferguson has been elected president of the Senn Club.

Tuberculosis Notes.—A building permit has been secured for the Cook County Tuberculosis Hospital, to adjoin the County Hospital, Harrison and Wood streets, and work on the building, which will cost $1,000,000, will soon be commenced.——The Chicago Tuberculosis Institute has issued 3,000 posters appealing for an affirmative vote on the referendum ballot for the municipal tuberculosis sanatorium, and 100,000 pamphlets setting forth the essential features of the Glackin law.——The Chicago Tuberculosis Institute reports that the net proceeds from sales of Red Cross Christmas stamps were $7,378.78. This sum is to be used by the society for such special purposes as preparation of a traveling tuberculosis exhibit, the preparation of small exhibits for schools, a relief fund for dispensary patients, and a special food fund for dispensary patients.

INDIANA

Found Guilty.—Orland C. Brown, charged on complaint of the Cass County Medical Society with peddling medicine in Logansport without a license, is said to have been found guilty, March 3, and fined $100 and costs.

Society Expels Member.—Huntington County Medical Society met March 9, at Huntington, and is said by a unanimous vote to have expelled Dr. John R. Hunter from membership because he had advertised in newspapers and had announced his intention of continuing so to do.

Vital Statistics for February.—During February tonsilitis was the most prevalent disease, followed in the order named by bronchitis, pneumonia, influenza, rheumatism, scarlet fever, pleurisy, diphtheria, measles, whooping-cough, chickenpox, typhoid fever, diarrhea, smallpox, erysipelas, cerebrospinal meningitis, dysentery, cholera morbus, puerperal fever and cholera infantum. During the month there were 130 cases of smallpox in 22 counties with no deaths, 93 cases of diphtheria in 33 counties, with 25 deaths; and 68 cases of typhoid fever in 30 counties, with 19 deaths. There were 2,955 deaths during the month, equivalent to an annual rate of 14 per 1,000. Pneumonia, tuberculosis, violence and cancer in the order named were the chief causes of death.

KANSAS

Asks Appropriation for State Sanatorium.—By a bill introduced by Senator C. F. Huffman of Cherokee county, an appropriation of $50,000 is provided to build and equip a free state hospital on Mount Oread, Lawrence.

Medical School Notes.—At a meeting of the faculty of the Kansas Medical College of Topeka, it was decided to add a course in pharmacy, beginning next year.——A new chapter of the Nu Sigma Nu fraternity has been installed at the University of Kansas School of Medicine, Lawrence.

Society Meeting.—At the annual meeting and banquet of the Franklin County Medical Society, held in Ottawa, Dr. Robert S. Black presided as toastmaster. Dr. Vilas E. Lawrence was elected president; Dr. John M. McWharf, vice-president, and Dr. James Ball, secretary-treasurer, all of Ottawa.

Personal.—Dr. Mordecai D. Elder, Piqua, has returned from a three months' trip in Mexico.——Dr. Edwin J. Kanavel, physician at the State Penitentiary, Lansing, has resigned, and will be succeeded by Dr. D. L. Axford, Burlingame.——Dr. Jacob W. Graybill, Newton, has been re-elected state medical examiner of the A. O. U. W.——Dr. Frank C. Stewart, Eskridge, has been made health officer of Wabaunsee county.

State Board Appointments.—The following appointments of members of state boards have been made by the governor: State Board of Health—Drs. Clay E. Coburn, Kansas City; James A. Milligan, Garnett, and James S. Scott, Independence, to fill unexpired terms, and Drs. Victor C. Eddy, Colby; Charles H. Lerrigo, Topeka, and Harry L. Aldrich, Caney, for full terms; State Board of Medical Examination and Registration—Drs. Charles J. Simmons, Lawrence, and Henry A. Dykes, Lebanon, to fill unexpired terms, and John Outland, Kansas City, for full term.

MARYLAND

Personal.—Dr. Benjamin F. Lansdale, Boyds, formerly a member of the board of house delegates from Montgomery county, is seriously ill in Johns Hopkins Hospital, Baltimore.——Dr. Edward P. Irons, Windsor Hills, is reported to be seriously ill at the Baltimore City Hospital.

Ask Relief from Purely Municipal Work.—An appeal is being made to Baltimore by the Maryland Association for the Prevention of Tuberculosis, and other city organizations for aid in controlling tuberculosis. There are now four special nurses employed by the association to visit and supervise patients in their homes, and they have 1,500 patients under their care. Last year 16,406 visits were made in addition to the inspection of 1,800 houses. The association now asks for relief from this work, which is properly a municipal function and should be performed by the health department. The health commissioner is willing to take charge of the work, providing the city supplies funds amounting to $13,500 for the annual salaries of fifteen nurses. At present the department only fumigates houses after the death or removal of consumptives.

Baltimore

Library Closed.—The library of the Medical and Chirurgical Faculty of Maryland was closed March 15, on account of the removal to the new building. It will be opened in its new quarters on April 19.

Personal.—Dr. Claude Van Bibber has gone to St. Agnes Sanitarium for treatment of a sprain of the back, due to a fall on the ice.——Dr. J. Whitridge Williams sailed for Europe March 25.——Dr. Hugh H. Young has returned from Jamaica.

Nurses for Tuberculosis.—The board of estimates has appropriated $1,500 for the employment of two nurses to be appointed by the health commissioner, for tuberculosis work in the city. They will assist the fumigating officers of the health department in disinfecting the homes vacated by death or removal of consumptives.

Money for Hospital.—By a decision of the Court of Appeals, the Church Home and Infirmary receives a reversionary bequest of $40,000.——The Ladies' Auxiliary of St. Joseph's Hospital realized about $7,000 at a recent fair for the new operating room of the hospital, to be dedicated to the memory of the late Dr. Isaac Ridgeway Trimble.

Child Labor and Factory Inspection.—In the seventeenth annual report of the Maryland Bureau of Statistics and Information, C. J. Fox, chief of the bureau, said that under the child labor and factory inspection laws the sweatshop has almost disappeared from Baltimore, and garments are now made in clean well-ventilated and well-lighted factories, and that many children have been rescued who were physically unfit for work. He recommends a law authorizing the bureau to remove from factories individuals suffering from consumption.

MASSACHUSETTS

New Hospital.—The Melrose Hospital Association has voted to build a new hospital on a site owned by the association, the building to cost about $55,000.

Sent to House of Correction.—Dr. Alfred J. Boyle, Boston, is said to have been arraigned in the police court on the charge of vagrancy, and sentenced to four months in the house of correction.

Society Changes Name.—At the recent meeting of the Society of Examining Physicians and Surgeons, held in Boston, it was voted to change the name of the organization to the Massachusetts Society of Physicians and Surgeons, and a committee was appointed to incorporate the association under the new name.

Gives Land for Experimental Work in Tuberculosis.—James M. Prendergast has donated nineteen acres of land near the Hyde Park line to the Boston Association for the Relief and Control of Tuberculosis, to be used for the carrying on of experiments. The association decided to utilize this land by establishing night camps for men and day camps for women and children suffering from tuberculosis.

Personal.—Dr. Henry T. Mansfield has been appointed town physician at Needham.——Dr. Charles A. Drew, Bridgewater, has been elected superintendent of the Worcester City Hospital, vice Dr. Thomas Howell, resigned, to become superintendent of the New York Hospital and Hudson Street House of Relief.——Dr. Merrill E. Champion has been appointed town physician of Arlington.——Dr. Edward E. Bancroft, Wellesley, has been appointed a trustee of the Wellesley hospital fund.——Dr. Edwin C. Farnham, medical advisor to the Cambridge board of health, has resigned.

MINNESOTA

Elections.—The Minnesota Wiener Medicalverein held its annual banquet February 13, which was attended by more than 100 physicians, former students in Europe. Dr. William D. Kelly was elected president, Dr. Eduard Boeckmann, treasurer, and Dr. Charles Freeman, secretary.

Tuberculosis Dispensary.—The Board of Charities and Corrections of Minneapolis has decided to establish a free dispensary for those afflicted with tuberculosis, which will be operated in connection with the City Hospital, and the city board of health will cooperate in the enterprise.

Physician Pardoned.—Dr. Jacob Force, former president of the Northwestern National Life Insurance Company, Minneapolis, who was sentenced to three years' imprisonment in the state penitentiary for misuse of the funds of the company, and was paroled some months ago, was pardoned March 13.

State Aid for Consumptives.—Senator S. A. Nelson has presented a bill providing for a tax of one-tenth of a mill, the proceeds to be used for giving aid to sanatoria for the treatment of tuberculosis. With the sanction of the State Board of Health, aid is to be granted to patients who are unable to pay the $10 a week required at the sanatoria.

Medical Advertising Bill Passed.—The House of Representatives has passed a bill prohibiting the advertising or distribution of printed matter relating to the so-called "Medical Institutes," and prohibiting also the distribution of advertising matter in the form of pamphlets or circulars regarding the treatment of venereal diseases.

MISSISSIPPI

Meeting of Health Officers.—The secretary of the State Board of Health announces that there will be a meeting of the county and municipal health officers of the state in Jackson, April 12, to discuss sanitary measures.

State Association Meeting.—The annual meeting of the Mississippi State Medical Association will be held in Jackson April 12 to 14, and one of the important subjects of discussion will be the launching of a campaign of hygiene and sanitation throughout the state.

Personal.—Drs. Walter R. McKinley and Walter C. Brewer have been appointed members of the board of health of Columbus, and Dr. McKinley has been selected as president of the board.——Dr. Jones has been elected second assistant physician at the Eastern State Hospital, Williamsburg, Va., vice Dr. Irene Bullard, resigned.

New Society Organized.—The East Mississippi Four County Medical Society was organized at Tupelo February 9. Dr. Robert M. Sadler, Okolona, was temporary chairman, and Dr. F. J. Underwood, Central Grove, temporary secretary. Representatives were present from Lee, Monroe, Chickasaw and Itawamba counties. Organization was effected and the following officers were chosen: President, Dr. Lucien C. Feemster, Nettleton; vice-presidents, Drs. T. A. Boggan, Tupelo; J. C. Gatchings, Prairie, and Robert M. Sadler, Okolona, and Woody N. Reed, Tilden, and secretary-treasurer, Dr. F. J. Underwood, Central Grove.

NEW YORK

Personal.—Dr. James A. Lyon, who has been connected with the Loomis Sanitarium at Liberty, has resigned his position and accepted a position at the Massachusetts State Sanatorium, Rutland.——Dr. Herman J. Boldt, New York City, delivered an address before the Medical Society of the Missouri Valley at St. Joseph, March 18, and was the guest of honor at a luncheon March 16.

Conference of Alienists.—An important conference of alienists from the various state hospitals was held at the Middletown Hospital, March 25 and 26. The institutions at Poughkeepsie, Manhattan, Central Islip, King's Park, Binghamton and the Pathological Institute of New York were represented. The time was devoted to a discussion of the medical problems arising in these institutions.

For Ambulance Service.—Homer Folks, secretary of the State Charities Aid Association, has been instrumental in having two bills introduced into the legislature in relation to ambulance service and contagious diseases in New York City. One provides for the establishment of an ambulance system in Manhattan and the Bronx by the trustees of Bellevue and the Allied Hospitals, and in Brooklyn, Queens and Richmond by the commissioner of public charities. The other bill provides an automatic and flexible scheme by which the department of health will be charged from time to time with the actual control of such contagious diseases as are of a readily communicable and dangerous character, leaving to public and private hospital authorities the care of the milder contagious diseases.

Workingmen and Industrial Accidents.—In a recent lecture on "Out of Health and Out of Doors," Dr. Edward T. Devine, general secretary of the Charity Organization Society, stated that during 1908 there were 251 persons killed by accidents in factories, quarries and tunnel construction in the State of New York; that at least 1,663 were permanently disabled, 1,541 probably permanently injured, and 10,474 temporarily disabled. There were 444 persons killed in accidents on the steam, subway, elevated and surface roads subject to the jurisdiction of the Public Service Commission of New York City. In addition, 2,147 were seriously injured and 32,469 injured to a lesser degree. The employers' liability laws in this state and in Pennsylvania are said to be worse than no laws at all. The wages of the workingman are not sufficient to provide for him in case of these accidents and there was no other protection against such accidents.

New York City

The Lincoln Hospital and Home.—During the past four months more than $96,000 has been subscribed by the people of this city toward a half-million-dollar endowment fund for the Lincoln Hospital and Home at Southern Boulevard and 141st Street. It is proposed to make this institution New York's monument to Lincoln, which medical and surgical leaders believe would not only be a most fitting tribute, but would be of great benefit to the sick and poor of the city.

NORTH DAKOTA

Physician Found Guilty.—Dr. Thor O. Moeller, Minot, formerly a practitioner of Devil's Lake, is said to have been found guilty of criminal malpractice, and to have been sentenced to imprisonment for ten years in the state penitentiary.

Tell Legislators About Tuberculosis.—February 5, Drs. Gustav F. Ruediger and James Grassick, Grand Forks, delivered addresses before a joint assembly of the house and senate at Bismarck, in which they advocated legislation to provide for the care of victims of tuberculosis.

Society Meeting.—At the annual meeting of the Missouri Slope Medical Association, held in Bismarck, Dr. William H. Bodenstab, New Salem, was elected president; Dr. Percy F. Kearney, Glen Ullin, vice-president, and Dr. A. M. Brandt, Bismarck, secretary-treasurer. A resolution was adopted endorsing the bill providing for a state sanatorium for tuberculosis.

Antituberculosis Association Organized.—The Antituberculosis Association of North Dakota was organized February 25, at Bismarck, and the following officers were elected: President, Dr. James Grassick, Grand Forks; vice-presidents, Mrs. Bolley, Fargo; and Drs. Victor J. LaRose, Mandan; Victor H. Stickney, Dickinson, and Andrew Carr, Minot; secretary, Mrs. J. E. Stevens, Northwood, and treasurer, Dr. Fannie D. Quain, Bismarck.

OHIO

Hospital Dedicated.—The new Union Hospital, located between Philadelphia and Canal Dover, was formally dedicated March 17. The building is a three-story brick structure with accommodation for 150 patients, and has been erected at a cost of $17,000.

Personal.—Dr. Charles E. Sawyer, Marion, was seriously injured March 23, in a collision between a street car and his carriage.——Dr. Torald Sollmann has been elected professor of materia medica in the school of pharmacy of Western Reserve University, Cleveland, vice Prof. W. H. Haake, resigned.——Dr. James W. McMurray has succeeded Dr. Horatio C. Chisholm as superintendent of the Central Emergency Hospital, Marion.

Cincinnati

Postgraduate Course.—Preliminary to the merging of the Medical College of Ohio and the Miami Medical College, a postgraduate course of six weeks will be given conjointly by the two schools, beginning April 16.

Honor for Dr. Withrow.—In recognition of his work in behalf of the Cincinnati public school, the Business Men's Club gave a dinner in honor of Dr. John M. Withrow March 27, in conformity with the rule of the club, that each year it shall express its appreciation of conspicuous public services for the welfare of the city.

Death of Dr. Conner.—Dr. Phineas Sanborn Conner, a surgeon of unusual attainment, and a writer and lecturer on surgery of more than national reputation, died suddenly from heart disease, March 26, at the home of his son-in-law in Norwood, a suburb of Cincinnati. A memorial meeting for Dr. Conner was held at the University of Cincinnati, April 1. A more extended notice will appear in The Journal, April 10.

Memorials to Dr. Reamy.—At the meeting of the Cincinnati Academy of Medicine, March 22, the evening was devoted to memorial addresses in honor of the late Dr. Thaddeus Asbury Reamy. The academy adopted resolutions of regret at the death of Dr. Reamey. Dr. Phineas S. Conner spoke on "Dr. Reamy as a Colleague"; Dr. William H. Wenning on "Dr. Reamy as a Member of the Academy"; Dr. William H. Taylor on "Dr. Reamy as an Obstetrician"; Dr. John M. Withrow on "Dr. Reamy as a Gynecologist"; and Dr. Louis Schwab on "Dr. Reamy as a Consultant."——The faculty of the Medical College of Ohio at its meeting March 22, passed resolutions of respect and regret regarding Dr. Reamy.

PENNSYLVANIA

Pathological Society Organized.—The Pathological Society of Pittsburg was organized February 22, with sixteen members. The following officers were elected: President, Dr. Joseph H. Barach; vice-president, Dr. Ernest W. Willetts, and secretary, Dr. S. George.

Milk Bill Becomes Law.—Governor Stuart, on March 24, approved the milk adulteration bill, which imposes a fine of from $20 to $50 on persons who sell milk adulterated with water or with fat removed. The same bill imposes a similar fine on persons selling ice cream containing less than 6 per cent. of butter fat, or preserved by chemicals.

Appropriations.—The senate committee has reported favorably the following appropriations: Elwin School for Feebleminded Children, $270,000; Austin General Hospital, $17,000; Uniontown Hospital, $60,000: Clearfield Hospital, $16,000; Booker T. Washington Hospital, Pittsburg, $10,000; and State Hospital, Shamokin, $5,000.——The total requests for state aid for hospitals and charitable institutions and for other purposes not including departmental demands, aggregate this year $54,927,590.

Philadelphia

Hospital Nears Completion.—The new building of the Frederick Douglas Hospital and Training School, designed for colored people, is nearing completion and it is arranged to dedicate the institution on April 22.

Smallpox on Steamer.—Two cases of smallpox were discovered on the steamship *Merion* at the quarantine station at Marcus Hook, March 26. The ship was held at quarantine and fumigated and all the passengers were vaccinated.

Anticontagion Gowns for Physicians.—Anticontagion gowns for physicians treating patients suffering from scarlet fever, diphtheria, measles and other contagious diseases, have been provided for free distribution by Dr. Joseph S. Neff, director of health and charities.

Personal.—Dr. John Steinwandel has been appointed outdoor physician in the 29th, 32d and 47th wards to succeed Dr. Herbert B. Coy.——Dr. W. W. Cadbury sailed for Canton, China, March 22, to become an instructor in the University Medical School of that city.

To Aid Epileptics.—A society to provide suitable employment for many of the city's 3,000 epileptics was recently organized and the following officers were elected: President, Dr. Matthew Woods; and directors, Drs. J. Madison Taylor, John H. W. Rhein, W. N. Trapp, Thomas J. Mays and P. Brook Bland.

Appropriations to City Institutions.—The senate appropriation committee has reported favorably appropriations to the following institutions: Midnight Mission, $3,000; Penn Asylum, $6,000; Academy of Natural Sciences, $100,000; St. Vincent's Home, $10,000; and Philadelphia Home for Incurables, $30,000.

Bequests.—By the will of the late Samuel Parker, the Frederick Douglas Hospital and Training School receives $1,000 and the Home for Aged and Infirm Colored People $500.——The will of the late Henry L. Fell bequeaths $500 to the Philadelphia Home for Incurables.——The will of the late Dr. Martin H. Boye bequeaths $12,000 to the Policlinic Hospital and $24,000 to the University of Pennsylvania.——The will of the late William Y. Mescheter contains bequests to the Medico-Chirurgical Hospital, $5,000; Methodist Hospital, $500; German Hospital, $500; Pennsylvania Society for the Prevention of Tuberculosis, $300, and Pennsylvania Society to Protect Children from Cruelty, $1,000.

GENERAL NEWS AND COMMENT

New Assistant Surgeons in the Navy.—At the graduation exercises of the Naval Medical School, Washington, March 25, diplomas were presented by the Secretary of the Navy to a class of 30.

Change in Editor.—Major Charles Lynch, Medical Corps U. S. Army, has succeeded Major James Evelyn Pilcher, U. S. Army, retired, as editor of the *Military Surgeon*, the organ of the Association of Military Surgeons of the United States.

Major Pilcher, who has been secretary of the association and editor of its journal for many years, has resigned on account of ill health. At the meeting of the executive council of the association held February 4, in Washington, resolutions of regret at the retirement of Major Pilcher, and of appreciation of his services, were adopted.

Death Rate in the Canal Zone.—The chief sanitary officer of the Canal Zone, in his report for January, especially calls attention to the low death rate of the total population under his jurisdiction, 22.86 per 1,000. The rate for the years preceding are as follows: January, 1908, 26.60; January, 1907, 35.12; January, 1906, 47.26; and January, 1905, 40.20. There has been a commensurate reduction of the deaths among employés as follows: January, 1905, 20.26; January, 1906, 40.36; January, 1907, 25.62; January, 1908, 12.72, and January, 1909, 10.98 per 1,000. No case of yellow fever, plague or smallpox occurred during the month.

Consumptives Unwelcome in Texas.—Dr. W. M. Brumby, state health officer of Texas, has issued an official notice stating that the people of the state are no longer able to cope with the tuberculosis situation. So many consumptives have been sent to Texas that the death rate from that disease has risen from almost nothing to over 10 per cent., and that the natives are now suffering from the disease because the population is unable to assimilate the added consumptives. The local charitable associations are said to be impoverished by hospitality extended to indigent consumptives and are unable to look after those now in Texas. Rest, good food, and fresh air are all the more important in the cure of tuberculosis than change of climate, but in spite of this many invalids are sent west without sufficient means and therefore encounter hardships which far more than counterbalance the favorable effect of the climate. Almost all Texas hotels and private boarding houses refuse to accommodate consumptives, and under these circumstances, Brumby makes the following appeal to physicians of the country: 1. Never send a patient in an advanced or hopeless stage of the disease to Texas. 2. Never send any one to Texas without making arrangements for board, etc,, before the individual leaves home. Keep the pauper at home. The patient in the incipent stage, if he has means, can benefit himself without endangering the public health.

Sanitation in Cuba.—In the report of the provisional administration of Cuba from Dec. 1, 1907, to Dec. 1, 1908, the most important sanitary effects of the year are said to have been the control and final extermination of yellow fever from the territory of the republic, and the steady progress which has been made to nationalize the sanitary department in municipal sanitation throughout the island. Of the 79 cases of yellow fever reported during the year, 53 occurred between Nov. 1, 1907, and Feb. 18, 1908, and since that date a local epidemic occurred in the department in Oriente, which was promptly brought under control, and a sporadic case in Havana, September 7, which did not create a focus of infection, and which was not followed by any secondary case. Havana is divided into 52 districts, each in charge of an inspector, who makes a house-to-house inspection and is held to a strict responsibility that no insanitary conditions exist, and that no breeding places for mosquitoes are overlooked. During the year, 584,222 house inspections were made. The steady progress which has developed in the municipal sanitary service now conducted, by the national sanitary department, is noteworthy. All the towns of the island of more than 1,000 inhabitants have this sanitary service, and in addition individual services have been conducted in some of the more important villages. A sanatorium for tuberculosis has been established with accommodation for sixty patients, and a new building in Havana has been completed, which is occupied by the dispensary for tuberculosis and the Tamago Dispensary for General Diseases. Two additional sanatoria are needed, one in Santa Clara province and the other in Oriente, and a dispensary for tuberculosis should be created in each large city of the island.

FOREIGN

An American Physician Honored in Germany.—Dr. James H. Honan, who has practiced medicine in Berlin for a number of years, has been the recipient of a marked honor from the German government, which has conferred on him through the *Kultusminister* an honorary certificate in recognition of his scientific medical attainments. Dr. Honan is a graduate of Rush Medical College and of the University of Berlin. He is founder and president of the Anglo-American Medical Association in Berlin.

Vital Statistics in Italy.—With a population estimated at 33,640,710, the death rate in 1877 was 28 per thousand inhabitants, but this has been reduced to 20 per thousand (1906). The deaths from tuberculosis have dropped from 20 to 16.77 per ten thousand inhabitants. The mortality from malaria has been reduced from 14,000 to 4,800, the maximum being in Sardinia, with, next in order, Sicily, Calabria and the Abruzzi. The number of suicides has increased from 1,429 in 1887 to 2,316 in 1908, including in the latter the suicides of 564 women and 11 school children. The fewest suicides occurred in Abruzzo and Calabria. Chronic alcoholism is assigned as the cause of 702 deaths, none in wine-growing districts. Industrial accidents were responsible further for 10,890 deaths, about the average for the last twenty years, according to the summary in the *Policlinico*, February 21.

The Zambaco Prize for Dermatology.—The sum of $160 is offered by the French *Société de Dermatologie et Syphiligraphie* every two years for the best work on dermatology or venereal diseases offered in competition for the prize. The works must be sent anonymously, written in French, but competition is open to the world. Previous publication of the work anywhere bars it from the competition. The next prize is to be awarded in April, 1911, and competing articles must be in the hands of the secretary, 93, rue Jouffroy, Paris, before Nov. 30, 1910. The foreign corresponding members of the society from this country are Hyde of Chicago, Ravogli of Cincinnati, Dühring and Stelwagon of Philadelphia, Bulkley, Elliott, Fordyce, Lustgarten, Morrow, Piffard, Robinson and Taylor of New York and White of Boston, with Brodeur and Latreille of Montreal, Lebel of Quebec and Gonzalez of Mexico.

Fatal Morphin Poisoning Ascribed to a Prescription.—The courts at Kempten, Germany, recently acquitted a physician who had been sued under the following circumstances: Called in the night to relieve gallstone colic in a young woman, he wrote an order for a solution of morphin; intending to prescribe 0.06 gm. morphin to 5 gm. water, he inadvertently wrote 0.6 gm. and made an injection of the fluid when it arrived. The patient collapsed soon after and died. In his defense he stated that she must have succumbed to some fatal idiosyncrasy to morphin, as it was impossible for the injection to have contained more than the ordinary dose. The concentration was so high that the morphin must have crystallized out as the fluid cooled. The supernatant fluid could not have contained more than 4 per cent. of morphin, and he used only this fluid. The weather at the time ensured the cooling of the fluid. His assertions were sustained by the experts summoned, and he was acquitted as not being responsible for the fatality.

LONDON LETTER

(From Our Regular Correspondent)

London, March 20, 1909.

Epidemic of Influenza in London

London is suffering from the ravages of influenza, but though the disease is widespread, the number of fatal cases is not large. Last week there were 66 deaths from the disease, as compared with 36, 12, 71 and 25, respectively, in the preceding four weeks. Of the 66 deaths, 33 occurred in persons over the age of 60. Though the number of cases appears to be greater than in previous years, the type of disease does not seem to be more severe.

Bombay Medical Congress

This congress, which opened February 22, has been a success in every way. Much attention, naturally, was devoted to malaria. Major Ronald Ross delivered an address and made suggestions of the greatest value for the prevention of malaria in India. Professor Kitasato of Japan sent a paper on plague, which was read by Professor Shiga. Captain Liston of the Indian medical service read a paper on prophylactic measures against the plague. He said that there could be no question as to the efficacy of inoculation; by means of it six times as many lives would be saved. Sir Lauder Brunton contributed a paper on snake bites. He insists that "permanganate of potash is a complete antidote to snake venom if quickly applied in sufficient quantity and in the proper way." A bandage should be tied tightly around the limb above the bite, the bite should be converted into a clean cut with a lancet and the potassium permanganate, moistened with water, rubbed in. Much doubt was expressed, however, as to the value of this method. Serum treatment was also discussed, but it appears that no serum had been produced which is useful in bites of all species of snakes. The serum which is now used in India is issued from the Central Research Institute, Kasauli. It is prepared with a mixture of cobra and daboia venom, and is therefore useful only in bites from snakes of these species. As there are 39 species of terrestrial poisonous snakes in India and about 30 species of aquatic snakes, the limited value of the serum is evident. In a paper on beriberi, Mr. Leonard Braddon maintained that the disease was due to intoxication from a specific poison contained in rice which had been exposed for some time after decortication so as to become stale. Professor Deycke sent a communication on his Nastin treatment of leprosy—a substance which he claimed acts directly on the bacilli. A report by Captain Williams, residency surgeon in the Persian Gulf, appeared to confirm this claim. Professor Musgrave of Manila read an important paper on mycetoma. Major Smith's paper on the extraction of cataract in the capsule attracted great attention. He has now performed this operation in 20.000 cases.

Smallpox Traced to Egyptian Cotton

Three cases of smallpox have occurred at Stockport and have been traced by the health officer to infected Egyptian cotton. The patients are "piecers" in the local cotton mills, and it is believed that they were infected by moistening the ends of the cotton with saliva in order to make them run in the machines. The health officer says that there is no need for alarm, as the origin has been traced, but he suggests that the operatives should be supplied with some solution so that they need not put the ends of the cotton in their mouths.

The Eugenics Review

A new quarterly periodical entitled the *Eugenics Review* will appear in April under the auspices of the Eugenics Education Society. Its object is to give expression to the eugenic movement for improvement of the race and to place eugenic thought on a scientific basis and to impress on all classes the dignities, privileges and duties of parenthood. The honorary president of the society is Mr. Francis Galton, the cousin of Charles Darwin, and the founder of the science of eugenics. He has founded and endowed the eugenics laboratory of the University of London. The *Eugenics Review* will comprise: 1. Articles by responsible writers. 2. Editorial notes on topics of the day which illustrate eugenic teaching. Notices of recent books on eugenics. 4. Official records of the work of the society. The range of the review will include biology, in so far as it is concerned with heredity and selections; antropology, in so far as it throws light on questions of race and the institution of marriage; politics, in so far as it bears on parenthood in its relation to civic worth; ethics, in so far as it promotes ideals that lead to improvement of racial quality; religion, in so far as it sanctifies and strengthens eugenic duty.

Actions Under the Workmen's Compensation Act

The Workmen's Compensation Act, which was drawn up by the government in the widest possible manner for the benefit of workmen, is constantly furnishing new and extraordinary claims. One man claimed damages for a flea-bite on the grounds that it was an accident within the meaning of the act, but this claim was scouted by the judge. Some wisdom still lingers on the judicial bench, whatever may be said of our legislators. A case has just been tried at Belfast in which a woman claimed compensation for the death of her husband, the chief engineer of a steamer, from dysentery, which occurred on a voyage to Calcutta. The judge dismissed the case, holding that dysentery was not an accident within the meaning of the act. In another case a ship's cook claimed compensation for rupture caused by the heavy seas. While his ship was in the Gulf of Bothnia the sea was so rough that rods were put on the stove to keep the pans in their places. When the ship pitched he was thrown on the point of one of the rods which caught him in the stomach. He subsequently discovered that he was ruptured. He contended that he would never again be fit to do his work, which involved the lifting of heavy weights. Medical evidence was given on behalf of the shipping company of the fitness of men suffering from rupture to go to sea. The medical adviser of the Shipping Federation showed that out of 476 men who were ruptured 279 were passed as fit for sea. The main point at issue was whether the claimant was or was not fit to go to sea. The judge awarded full compensation for one week, the claimant's wages being $5 a week, but ordered the payment to be made at the rate of 2 cents a week in order to keep the case open.

The Radium Institute

A site for the proposed Radium Institute has been acquired in Riding House Street, Portland Place. The institute will be conducted on the lines of the Paris Radium Institute, to which the newly appointed superintendent, Capt. A. E. Pinch, F.R.C.S., has gone to study the methods in use. The building will be divided into two parts, with separate entrances. One part will be devoted to poor patients, the other to those who can pay for treatment. Patients for gratuitous treatment must bring a certificate from a physician stating the nature of the case and the fact that they are unable to pay. Paying patients should, if possible, be accompanied by their physician. Failing this, they must bring a letter from him stating the particulars of the case. Demonstrations on the use of radium will be given to physicians, who will be advised as to its mode of use and as to the radioactivity of their own specimens. Building operations are being pushed, and it is expected that the institute will be opened at the end of September.

PARIS LETTER

(From Our Regular Correspondent)

Paris, March 16, 1909.

Cerebrospinal Meningitis

Dr. Netter, physician to the Hôpital Trousseau, has made to the Academy of Medicine and the Société médicale des Hôpitaux de Paris, two communications on the epidemic of cerebrospinal meningitis, which is at present raging at Paris. Netter particularly insists on the good results of intraspinal injections of antimeningococcic serum. In his personal statistics the mortality has been only 20 per cent. with the use of the serum. The injections should be made in large doses (from 20 to 30 c.c. in the child and 30 to 45 c.c. in the adult), repeated on several consecutive days, even though the first injection has been followed by a distinct amelioration, and they should be begun as soon as possible. The efficacy of the serum was confirmed by Dr. Vaillard, who spoke of cerebrospinal meningitis in the army, and particularly of the epidemic at Evreux, referred to in preceding letters. At Evreux the first five patients attacked did not receive injections of serum. They all died; while out of 18 other patients, who were treated with antimeningococcic serum, only 2 succumbed.

The Income Tax and the Medical Profession

The Chamber of Deputies has recently passed a measure for the adoption of an income tax. The following are the provisions—with the exception of modifications which may be voted by the senate—which concern the liberal professions, including that of medicine. The income tax in the liberal professions is fixed annually on the basis of the net income realized during the preceding year; in regard to those who have exercised their profession only for some months of a year, the net reveinue is to be calculated on the results obtained since the date at which practice was begun. Out of the income thus determined, a deduction of a sum varying from 1,500 to 3.000 francs is made, according as the taxpayer is domiciled in a commune of 10.000 inhabitants or fewer, of 10,000 to 100,000 inhabitants, of more than 100,000 inhabitants, or finally in the department of the Seine. Moreover, out of his taxed income each taxpayer has the right to the following deductions:

Five-sixths of that portion of his income which does not exceed 3,000 francs, four-sixths of that comprised between 3,000 and 3,500 francs, and so on up to one-sixth on that comprised between 4.500 and 5,000 francs.

Every physician, yearly, during the month of January, is to send to the comptroller of direct taxation a declaration of his income. A ruling will determine, taking into consideration the obligation of the professional secret, the statements that the declaration must contain. If the comptroller accepts the declaration as true, he assesses the tax on it. If he considers it inaccurate he is to request the contributor to modify it within twenty days. If, when this period has expired, an agreement has not been come to, the comptroller will make an official valuation of the revenue. Before the administrative tribunals, the comptroller will sustain his valuation by the help of the sources of information at his disposition. The taxpayer can protest against the valuation submitted by the administration, by all means, documentary and otherwise, in his power. In any case, even if an expert investigation is ordered, the tribunal will not be able to require the production of the physician's account-books.

In default of any declaration the comptroller will make an official valuation and communicate it to the interested party, who will have twenty days in which to contest it. If an agreement can not be arrived at during this period, the party interested may address himself to the administrative tribunals, submitting the legally prescribed declaration as the basis of his plea.

Death of Drs. Motet and Boursier

Dr. Motet, a member of the Academy of Medicine, died recently at the age of 76 years. An eminent alienist, he had a special predilection for the medicolegal side of mental alienation. Since 1865 he had been inscribed on the list of experts in the courts and tribunals of the department of the Seine. He was a member of the medicolegal society of France from the early months of its foundation, was general secretary in 1887, and president in 1904. He was also vice-president of the Association of Physicians of France.

The Faculty of Medicine of Bordeaux has recently lost its professor of clinical gynecology, Dr. Andre Boursier, author of a "Précis de Gynécologie" that is widely appreciated.

Prophylaxis of Epidemic Diseases and Compulsory Notification

The government has notified all the local health authorities to have in readiness all the measures of sanitary defense to prevent the diffusion of cholera which continues to flourish at St. Petersburg in spite of the severe cold. After detailing the measures of isolation and disinfection which must be immediately put into practice if the cholera should penetrate into France, the notice refers to the conduct of the physicians. It is recalled that in most places physicians have refrained from making the notifications required by the law of 1902, and have excused themselves by the fact that the disinfecting services were not as yet organized. While not approving of this conduct, the premier, M. Clemenceau, who sends out the notice, remarks that disinfection in the course of the disease and complete disinfection after death being essential measures, "one can understand, up to a certain point, that the physicians should await the time when the municipalities and departments should themselves have conformed to the obligations which the law imposes on them." But as soon as in a town or province the disinfecting service is organized, this excuse for abstaining from notification no longer exists. The premier relates that both the representatives of the body medical and Academy of Medicine have requested a slight modification of the law of 1902, which would consist in associating the father of the family with the physician in charge of the case as regards the notification (see THE JOURNAL, Dec. 5, 1908, p. 1985). M. Clemenceau has declared himself ready to enter on this course, and will present shortly to parliament a modification of the law in this direction. But this step will be taken only on condition that, from now on, physicians will abandon their attitude of general abstention. The premier also urges on the prefects to address to physicians a "pressing and cordial appeal," and to point out to them the particular interest which attaches to the fact that, from now on to next summer, the different disinfection services organized by the towns and departments should be brought into working efficiency by due notification of transmissible diseases. In regard to the work of the disinfection service, the prefects are to gather with care the observations and the criticisms of physicians, with a view to introducing improvements into the service. On the other hand, if certain physicians still hold aloof in uncompromising abstention, in systematic ignoring of the law, it will be the duty of the prefects to apply the legal penalties to these physicians and to exclude them rigorously from the various offices to which candidates are named by the prefects.

BERLIN LETTER

(From Our Regular Correspondent)

BERLIN, March 11, 1909.

Results of the Social Insurance Legislation

By the invalid and age insurance law of 1889, invalid insurance societies were permitted to invest one-fourth of their resources in philanthropic enterprises, and by an amendment in 1899 this proportion was raised to one-half. Up to the end of 1908 these societies whose assets at that time amounted to $357,600,000 (1,490 million marks), had invested in loans for philanthropic purposes, about $162,000,000. Of this amount one-third had been devoted to building homes for working men, one-sixth to agriculture and one-half to building hospitals and convalescent homes and for other philanthropic purposes. As compensation for accidents, there were paid in 1908 $37,680,000, nearly $2,000,000 more than in 1907. In 1886 the amount paid as compensation for accidents was about $500,000.

Central Institute for Balneology

The German committee formed some time ago for the establishment of health institutes at the watering places and health resorts is planning the foundation of a central institute for balneology. This institution is to investigate the climatic, physical, chemical and therapeutic conditions at the various springs and study the technic of balneology as well as the business aspects of the health resort enterprises, and to conduct courses of lectures and practical exercises covering the entire ground of balneology.

Insurance of Students Against Accidents and Disability

In Charlottenburg since last October al students in the city schools of higher grade (*Ober-Realschule*) have been insured against accidents and invalidism, and in eight cases money has already been paid for sick benefits and for the expense of treatment. The insurance applies to all accidents which befall students either at the institution or on excursions which they undertake under the direction of the instructors. The annual premium amounts to 33 cents, for which the student is entitled to receive 72 cents a day as long as he is confined to his room by an injury which he has received at school, either in gymnastics or in any other way. In case of complete invalidism, the injured student receives a sum which is fixed according to the especial circumstances, with a maximum of $720 (3,000 marks).

Illness of Nurses at the Rudolph-Virchow Hospital

A small epidemic among the nurses in the Virchow Hospital is attributed to the eating of mushrooms. Although of less moment than the previous epidemic of meat poisoning, the affair has created some stir. In so large an establishment accidents will naturally happen without any blame to be attached to the management, but such instances are to be regretted, since they increase the aversion felt among the lower classes against a stay in a hospital. The supervision of the preparation of food should be more strict, although such occurrences are no more to be completely avoided than railroad accidents.

Tuberculosis Stations Established by Life Insurance Company

The *Landesversicherungsanstalt Berlin*, which has already achieved considerable success in the campaign against tuberculosis under the management of its able president, Dr. Freund, has instituted a new measure by the establishment of special tuberculosis stations for the care of the sick who must be treated at home. These tuberculosis stations are to provide sanitary dwellings for advanced cases of tuberculosis which will be under the care of nurses, to furnish the patients beds and sputum cups and to secure the regular disinfection by specially instructed disinfectors of the apartments occupied by consumptives. In addition the other members of the family are to be examined in order to detect the first signs of the disease as early as possible with a view to instituting a course of treatment, and patients discharged from sanatoria are to be examined at definite intervals and given treatment to ensure permanent results. Cases in which the diagnosis is doubtful are referred to a tuberculin institute lately established by the same insurance company.

In addition to the care of tuberculous families, the tuberculosis stations are to secure lists as complete as possible of all the tuberculosis cases in the respective districts of the city. In this task they will be aided by the central committee of the *Krankenkassen* which has concluded to report all cases of tuberculosis of the lungs and larynx. The police department has also agreed to report all deaths from pulmonary and laryngeal tuberculosis. In this way it will be possible gradually to construct an exact picture of the extent and spread of tuberculosis in Berlin.

VIENNA LETTER

(From Our Regular Correspondent)

VIENNA, March 13, 1909.

Jewish Mortality in Vienna and Jewish Health

A report of the bureau of health on morbidity and mortality in various communities and localities gives special attention to the sanitary condition of the large Jewish colony in Vienna (120,000 persons). The Jews have their own burial-ground and their own hospital, and often select their doctors on religious grounds. Exact statistics, at least in regard to mortality, are therefore obtainable.

The most striking fact is that the health of the Jews is unusually good—much better than that of the gentiles among whom they live. For instance, while there are yearly 300 cases of disease each among gentile clubs of 1,000 members, only 207 cases apiece have been found in similar Jewish clubs. The mortality figures furnish an even better standard of comparison. The mortality for the city of Vienna has come down from 21 per thousand sixteen years ago to 16.7 per thousand in 1908. In the Jewish community it is only 13 per thousand, and it has not been much higher within the last twenty years. This indicates that the preventive measures adopted by modern sanitation—cleanliness, fresh air and proper food—have been practiced by the Jewish citizens for many years in obedience to religious precepts. A comparison of the figures of infant mortality among the two races is also striking. For Vienna, the figure is 127 per thousand children under 1 year of age; among the Jews of Vienna it is only 88 per thousand. The proverbial fertility of this people is due in no small degree to the great care given to infants. Breast feeding is encouraged by religious precept. Soberness of the men, cleanliness in sexual intercourse and careful attention to the pregnant and lying-in woman are not only demanded by the religious code but observed. The increase of insanity among the Jews is a serious fact. While there was an increase of cases of insanity among the gentiles from 16 per ten thousand in 1890 to 48 per ten thousand in 1908, the insane among the Jews have increased from 16 per ten thousand in 1890 to 102 per ten thousand in 1908. The average life expectation among Jews and gentiles does not differ much, but there are relatively more octogenarians among the former.

The distribution of the sexes is nearly equal in the two groups of the population: 1,062 boys to 1,000 girls among the new-born, 1,040 girls to 1,000 youths at the age of eighteen, and 1,040 women to 1,000 men in the forties. The figures for the Jews are a little more favorable to the men. A marked difference between the two races is observed in respect to marriages. Only 8 per cent. of the Jewish girls do not marry; more than 12 per cent. of the gentile girls remain spinsters; and, while only 10 per cent. of the Jewish men are bachelors, 14 per cent. of the gentile men remain unmarried up to their fiftieth year.

Pharmacology

A TOXIC HAIR DYE AND ITS ANALYSIS

Two More Cases of Poisoning with Mrs. Potter's Walnut Juice Hair Stain

To the Editor:—A woman came to me for treatment a short time before Dr. Schalek's and Dr. Baker's reports of cases of dermatitis venenata due to "Mrs. Potter's Walnut Juice Hair Stain" appeared in The Journal (Feb. 13, 1909, p. 557, and March 6, 1909, p. 787). The patient, who had used the same preparation, presented a picture identical to that which they described.

W. W. Harrington, M.D., Spokane, Wash.

To the Editor:—I have recently treated a case of dermatitis venenata resulting from the use of "Mrs. Potter's Walnut Juice Hair Stain." One application of the dye resulted in such a severe inflammation that I feel confident the patient will never use the preparation again. The dermatitis extended from the scalp over the face, neck and shoulders, and ran its usual course of about ten days. Following this acute attack, a subacute eczema resulted, involving the scalp, face, neck, trunk and arms. This persisted for six weeks, resisting treatment in the most stubborn manner.

James Douglas Gold, M.D., Bridgeport, Conn.

Comment: "Mrs. Potter's Walnut Juice Hair Stain," manufactured by the Mrs. Potter Hygienic Supply Co., Cincinnati, has been analyzed by the chemists of the North Dakota Agricultural Experiment Station. The advertisements state that the preparation contains "no sulphur, lead or silver," and is "especially recommended for hair that has been bleached or discolored with peroxid or other powerful chemicals." The samples examined consisted of two bottles of liquid, called No. 1 and No. 2, respectively, the contents of which, the directions say, should be mixed before the dye is applied to the hair. Bottle No. 1 was found to contain 1.86 per cent. absolute hydrogen peroxid. Bottle No. 2 contained a "strongly alcoholic liquid of a light brown color, contents 54.45 per cent. absolute alcohol by volume." No lead, bismuth or mercury compounds were detected. Says the report: "The active principle or dye appears to be a phenolic compound and conforms to the tests, etc., for para-phenylene diamin, an anilin derivative which, on oxidation, becomes black or brown." The report goes on to quote from an article published in the *Revue Scientifique*, April, 1908, in which Schuller discusses very fully "those hair dyes prepared with para-phenylene diamin." Says Schuller: "Under the influence of oxidizing agents, para-phenylene diamin forms a black pigment, quinone diimid,* a very poisonous substance which is capable of much mischief under certain circumstances. The hair dye is prepared by treating the tincture of para-phenylene diamin with hydrogen dioxid. The toxicity of quinone diimid does not manifest itself with equal intensity in all persons. The symptoms of poisoning consist in a cutaneous eruption, with intolerable itching, and more or less violent headache. It has been known to produce swelling of the limbs and bloating of the face. These symptoms are quite variable in their severity and in many instances are so slight that their significance remains unrecognized." The North Dakota report closes with the statement: "This preparation does not show the percentage of alcohol present and is mislabeled, inasmuch as the principal ingredient is not 'walnut juice,' but a synthetic compound."

Para-phenylene diamin is a coal-tar product used as a dye. It is very toxic and in its manufacture great care is required on the part of the workmen to prevent poisoning. In the *Pharmazeutische Centralhalle*, March 4, 1909, p. 190, a warning appears, issued by the government of Saxony, against two hair dyes containing this chemical. In spite of these facts, this substance is sold indiscriminately as a "harmless" hair dye, with no warning as to its dangerously toxic effects.

Revision of the National Formulary

At the meeting of the American Pharmaceutical Association, last September, provisions were made for revising the National Formulary, a book adopted with the Pharmacopeia as determining the standards of purity and strength for drugs and medicines under the provisions of the Food and Drugs Act. That many of the features of this book are in need of careful revision is evident. The matter of nomenclature of official preparations is one of serious importance and physicians could do much to improve the National Formulary, and for that matter also the Pharmacopeia, if they would take an interest in the subject. It should be insisted that meaningless or misleading names be replaced by titles that will comply with the requirements of the law. Then those entrusted with the enforcement of that law will not continue to be hampered by the shortcomings of the standards adopted by its provisions.

When the National Formulary was discussed recently at the City of Washington Branch of the American Pharmaceutical Association, Dr. Wiley said: "The harmonizing of the nomenclature with the letter and spirit of the law, so far as the committee on revision of the National Formulary is concerned, is clearly a case of *'noblesse oblige.'* Nothing in the National Formulary should conflict with the requirements of the Food and Drugs Act. It is advisable to call a spade a spade and to insist that the national standards contain nothing but 'pure-bred' nomenclature, that this nomenclature be based on a principle and that that principle be honesty.

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* According to Erdmann (Ber. d. deutsch. chem. Gesellsch., 1904, p. 2906), the coloring matter is not quinone diimid, but a substance formed by the condensation of three molecules of the quinone diimid formed in the course of the reaction. Erdmann also calls attention to the toxicity of quinone diimid.

Now that physicians have been aroused to take cognizance of conditions that prevail, or have prevailed, regarding proprietary medicines, it seems reasonable to suppose that they will seek to remedy the glaring defects of the National Formulary—one of the two official standards for the quality and strength of drugs.

Correspondence

Training for Public Health Officers

To the Editor:—In THE JOURNAL, Feb. 20, 1909, appears an excellent and timely article by Dr. J. W. Kerr of the U. S. Public Health and Marine-Hospital Service, on "The Municipality and Its Relations to Transmissible Diseases." In that article (page 610) the author deplores the fact that the systematic, practical teaching of hygiene, sanitation or preventive medicine, as it may be called, has been and is conspicuous by its absence from the curricula of American schools.

He states: "There is now practically no provision for such advanced study, and no institution in our country offers a course leading to the granting of the degree of doctor of public health." It was that statement that called forth this communication.

For a number of years the University of Pennsylvania has recognized the need for trained men in public-health work. Just how to meet the requirements could not, *a priori*, be said. Systematic lectures on the subject to the senior medical classes with obligatory attendance and final examination proved to be only in part a solution.

There are phases of the subject that can not be grasped without practical work, and a good deal of it. The manifold demands of a modern course, leading to the degree of doctor of medicine, makes it inadvisable, if not impracticable, to assign a sufficient number of hours in course properly to equip the individual for the many-sided responsibilities of a health officer.

The education of a person who is to direct the public-health affairs of a community deserves the same careful consideration accorded to the other specialties in medicine. The University of Pennsylvania, being conscious of this, offered in 1906 a course leading to the diploma of public health, and in so far as I am aware, that course, projected along the lines followed by the English and Scottish universities, is the first of its kind offered in this country.

Since the announcement of that course, a number of praiseworthy efforts by other universities have been made to excite public interest in this important subject. These efforts in the main, however, have been in the way of didactic lectures, in some cases to medical students, in others, as more or less semi-popular lectures designed for the busy practitioner and the intelligent layman. None of them contemplates a formal reward on the part of the university to those who take the lectures, except in one or two instances where credit is given to students attending them. In a few cases, attendance on such lectures, given in medical courses, is compulsory; in others, the lectures are voluntary or elective.

In 1908 the University of Toronto announced an excellent course of instruction very similar in its essential details to that offered by the University of Pennsylvania.

Though opportunities for instruction in public health are offered, it can not be said that they lead to a degree; that they are general on the part of the universities; or that many students avail themselves of them. There is a reason for the latter statement. At present, scientific equipment and practical familiarity with the needs of the work are not everywhere demanded as the prime qualifications for the health officer; there are too frequently other considerations, but these need not be discussed here. However, the strenuous effort toward the betterment of things exhibited in our daily and weekly newspapers, our popular magazines and our professional journals, must in the end bring the public to realize that of all the branches of municipal, state or federal governments, none is of more importance, and none requires a higher order of broadly trained men, than those having to do with the safeguarding of the public health.

When demand for such men is generally made, when trained men can see an opportunity to utilize their special equipment in public-health work, then and not till then will universities and other educational institutions provide the opportunities for training.

A. C. ABBOTT, M.D., Philadelphia.

The Relief of Dr. Carroll's Widow

WASHINGTON, D. C., March 29, 1909.

To the Medical Profession:—The following resolution was adopted by the Legislative Council of the American Medical Association at its meeting in Washington, D. C., in January, 1909:

> *Resolved:* That a committee composed of one member of the Medical Department of the Army, one of the Medical Department of the Navy, one of the Public Health and Marine-Hospital Service, one member of the District of Columbia Medical Society, and one member to represent the profession at large, members of the council, be named by the chairman, and instructed to present to the different medical services of the government, the District of Columbia, and the profession at large the conditions of distress under which the widow of our hero brother, Major James Carroll, is placed, and suggest or help to devise such plan and action as may speedily bring relief.

The chairman appointed the following committee: Major M. W. Ireland, U. S. Army; Surgeon W. H. Bell, U. S. Navy; Surgeon John F. Anderson, U. S. P. H. and M.-H. S.; Dr. John D. Thomas, District of Columbia; Dr. A. S. von Mansfelde, Nebraska.

At the death of Major Carroll, Sept. 16, 1907, his family was left practically unprovided for. There was a small insurance policy, and a short time prior to his death Major Carroll had begun making payments toward the purchase of a home in Washington. A mortgage of $5,000 remains unpaid on the house and a further debt of $2,300 secured by notes payable at the rate of $50 a month. Congress allowed Mrs. Carroll $125 a month, and on this amount depends the support of herself, the aged mother of Major Carroll and seven minor children. It is utterly impossible for her to make the payments on the house, and unless assistance is speedily forthcoming she will lose it.

It is certainly needless to repeat to the members of the medical profession of this country the distinguished service of Major Carroll as a member of the yellow-fever board in Havana when he submitted to an experiment to prove that the disease was transmitted by a mosquito. He suffered a severe attack of yellow fever and for a time his life was despaired of. This illness left him with a disabled heart, which eventually cost him his life. It is believed that every physician is willing to contribute toward saving the home of the widow and orphans of this hero.

In response to this resolution, your assistance is invited toward the attainment of the worthy object expressed in the above resolution.

The following contributions to the Carroll fund have been received:

Officers of the Medical Corps, U. S. Army	$1,500.00
Officers of the Medical Department, U. S. Navy	400.00
Officers of the U. S. P. H. and M.-H. S	300.00
Officers of the District of Columbia	210.00
Mrs. Frances E. Hand, New York City	50.00
Dr. Eugene A. Crockett, 298 Marlborough St., Boston	5.00
Dr. Edmund A. Christian, Supt., Eastern Michigan Asylum, Pontiac, Mich	1.00
Dr. W E. Clark, Frederick, S. D	5.00
Dr. George W. Gay, 665 Boylston St., Boston	10.00
Dr. L. Hektoen, Memorial Institute for Infectious Diseases, Chicago	5.00
Dr Emil King, Fulda, Minn	1.00
Dr. John A. Koch, Quincy, Ill	5.00
Fountain and Warren Medical Society, Attica, Ind	12.95
	$2,504.95

M. W. IRELAND, Chairman.

[Contributions for this fund are earnestly requested from physicians. Make checks, drafts, etc., payable to Major M. W. Ireland and send them to him at the office of the Surgeon-General, War Department, Washington, D. C. Acknowledgment of subscriptions will be made in THE JOURNAL.]

The Newer Neurology

To the Editor:—In The Journal, March 20, 1909, p. 982, Dr. Blackburn still classifies acute anterior poliomyelitis as a "system disease"—a disease of the lower motor segment—in his scheme for a "postgraduate course for county societies." This is unfortunate, for it represents an old and discarded conception and helps to keep alive the confusion and pessimism among general practitioners in regard to neurology.

The idea that acute anterior poliomyelitis is a disease of the lower segment had its origin with Charcot, who based his pathology and classification on cases examined only in the late and chronic stages.

It is recognized to-day that acute anterior poliomyelitis is merely a form of myelitis; primarily a vascular or inflammatory trouble, which, for anatomical reasons, is more or less confined to the anterior horns of the cord. The chromatolytic changes in the ganglion cells are consecutive or associated phenomena. The latter, however, do not classify the disease as a primary "systemic" trouble of the lower motor segment any more than the degeneration observed in the pyramidal cortical neurones; after a cerebral apoplexy or *inflammation*, make of the former a primary systemic disease of the upper motor segment. Without referring to my work and the emphasis laid therein on this modern conception of the disease, I will quote the words of Starr in the last edition (1907) of his "Nervous Diseases": "The majority of recent pathologists believe that in anterior poliomyelitis there is an acute inflammatory process limited to the domain of the anterior spinal arteries, involving both the neuroglia and the ganglion cells and resulting in degeneration and atrophy both of the interstitial tissue and of the ganglion cells. . . . In a number of cases, the explanation of the origin of the process is found in a thrombosis of one of the branches of the spinal artery or in a hemorrhage into the anterior horn."

In a word, then, acute anterior poliomyelitis is a myelitis, a vascular trouble primarily. The chromatolytic changes in the ganglion cells whereon the old Charcot conception of the disease was based, and whereby it is to-day classified by belated students of neurology as a "system" disease of the lower motor segment, are of the nature of mere consecutive or associated phenomena.

The distinction between the two conceptions has a most important bearing on the etiology, prognosis and treatment of the disease, as I have shown elsewhere.

L. Harrison Mettler, Chicago.

Accident Insurance

To the Editor:—The case reported by Dr. Robert T. Morris in The Journal, March 13, under the title, "Appendicitis and Accident Insurance," induces me to report a case now going through the courts in Iowa.

A traveling passenger agent, aged 62, in perfect health and an unusual specimen of physical manhood, who had never previously had a severe illness, found one morning that his regular defecation was impossible in consequence of agonizing pain in the rectum on the slightest attempt. After several ineffective efforts, at his wife's suggestion and in her presence he lubricated his finger with vaselin, and with difficulty removed from the rectum a piece of fish bone which had been caught there transversely. He recognized from the blood at the time that he had injured himself. This happened in Chicago on Monday morning. On Tuesday afternoon I saw him at my office, received the above history, and examined him without any instrumentation. Just within the sphincter was a tear of the mucous membrane about three-quarters of an inch long. This was cleansed and touched with solution of tincture of iodin, carbolic acid and chloral hydrate. From this slight lesion a most severe case of septic infection developed. The whole cellular tissue of penis, scrotum and ischiorectal fossæ, and the intermuscular abdominal planes, was successively invaded, became gangrenous, and death ensued.

The patient held accident insurance in several companies. On the third day I assisted him to make out the necessary reports required by the policies. All the companies but one immediately paid the insurance. The one company declined payment on the ground that the terms of the contract had not been complied with, inasmuch as the deceased had not notified the company of the date and nature of the accident, which it contended, within the meaning of the law and the contract, occurred when the insured swallowed the bone! The widow brought suit, plaintiff's attorney arguing that not the swallowing of the bone, but the laceration of the mucous membrane and consequent infection, constituted the accident. The presiding judge sustained the plaintiff. The case was appealed by the accident company, and is now before the higher court.

The absurdity of the company's contention, which would require a policy holder to "keep tab" on all the foreign and toxic substances present in his daily food, and, whether conscious at the time of the fact or not, to report to the company that he had "swallowed something" by accident that might eventually prove injurious, is obvious.

J. H. Greene, M.D., Dubuque, Ia.

Benzoate of Soda in Foods

March 20, 1909.

To the Editor:—I must request you to correct a misrepresentation of the position relative to sodium benzoate in my letter published March 13. If your correspondent of the current issue had read the letter with sufficient care, he would have learned that what I "put perfectly clear" was that the argument against sodium benzoate produces the impression of an effort to mislead the public rather than to give due regard to the facts. Considering that we have not yet seen the report of the referee board, and, moreover, since it has not yet been made public, that the board is not in a position where it can defend its conclusions, we must realize that, especially in view of the eminence of those composing the board, any criticism of their conclusions at this time is premature and ill advised. If we recall that ripe rot is the normal method by which vegetable matter tends to return to the earth from which it has grown in plant construction, we should know that decay is not due to the careless handling of raw material, but is the inevitable result of exposure to the air of all succulent vegetable products that do not contain preservative.

We need only consult our materia medica to note that acetic acid, all of the many spices, salt, sugar, onions, garlic, in fact, all of the ingredients catchup excepting tomato itself are drugs, as well as sodium benzoate; yet these are all allowed in food without regard to the possibility that they may not be harmless when indiscriminately used by "infants, children and those wavering between life and death." We must avoid confusing an essentially injurious quality with the possibility of an injurious effect from unusual conditions, such as the ingestion of inordinate quantities. Anything and everything, including the most nutritious food, may be deleterious under exceptional circumstances. What we have to determine with a given substance is whether it is essentially injurious or whether it resembles other food ingredients in becoming so only under some unusual conditions.

E. E. Smith, M.D., New York City.

Compound Comminuted Fracture of the Hip Followed by Bony Union and Movable Joint

To the Editor:—In The Journal, Aug. 4, 1906, I reported a case of gunshot wound through the great trochanter and hip joint, from which shot pieces of clothing, gun wads and fragments of bone were removed. The patient, a farmer, recently presented himself for examination and the findings are such that I am sure that they will be of interest to the profession generally. The man is able to do his work as well as ever. There is three quarters of an inch shortening, for which he wears a slight elevation of the heel of his shoe. Every motion in the joint is almost perfect. I believe that the excellent results in this case are due to the facts that the wound was filled with Moorhof's bone, and that the two-way extension of Maxwell was applied.

James E. Moore, Minneapolis.

Miscellany

Transmission of Disease by Insects.—F. C. Wellman (*Proceedings of the Pathological Society of Philadelphia*, February, 1909) illustrates the value of a knowledge of entomology to the physician by a consideration of the relation of a number of insects to disease. The ticks are of especial importance in Africa where Wellman has made his investigations. The disease-bearing species is known to communicate African relapsing or tick fever. Half the force engaged in building railroads are sometimes sick with exacerbations of this fever. On investigation, Wellman found that the ravages of the disease could be checked by having the men sleep in hammocks suspended by ropes. A knowledge of the character and habits of the insects enabled him to protect the patients. Wellman has also made the discovery that this tick conveys a filaria. Wellman believes that the tick fever of Persia is also caused by a spirochete and suggests that this whole genus of ticks should be investigated. The interesting fact that the habitat of the tsetse flies is confined within belts of territory is of great importance in preventing sleeping sickness. If one is ten feet outside of a fly belt he runs little chance of being bitten. This is illustrated by several incidents. The caravans crossing a river in the midst of a fly belt in a certain city used to carry cases of sleeping sickness down to the coast. By changing the route a few yards upstream, this source of infection was avoided. One village, situated in a fly belt, was also decimated. Wellman advised the removal of the village to a location about a quarter of a mile away, which was done, and to this day there has not been a single case of sleeping sickness in that village. But a man who subsequently insisted on placing some of his bungalows in one corner of the belt paid the penalty of his rashness by becoming infected with sleeping sickness, which necessitated his return to London. While beetles are not usually regarded as sources of disease, there are some which are parasitic on animals and which should be more carefully studied. A species of hymenoptera seems to be responsible for the ion of anthrax in Cyprus, as large numbers of them on the bodies of sheep dead of anthrax. Chil- d of playing with these insects. In conclusion, lays stress on the third factor in tropical dis- two being the patient and the insect that the disease. The third factor is constituted of the dark-skinned race, who act as a cul- ng the infective organisms without visible lves, but transmitting them to the white men.

for Sugar.—Benedict, in the *Journal of Biological* ebruary, 1909, proposes the following formula as **Fehling's** reagent:

	C.L. or Gms.
(pure crystallized)	17
	173
(anhydrous)	100
	to 1000

; of heat dissolve the sodium citrate and car- about 600 c.c. of water. Pour (through a folded necessary) into a graduate and make up to 850 c.c. the copper sulphate in about 100 c.c. of water and p to 150 c.c. Pour the carbonate-citrate solution into beaker or casserole and add the copper sulphate solu- slowly, with constant stirring. The mixture is ready for . The following is the procedure for the detection of dextrose in the urine: To about 5 c.c. of the reagent in a test tube 8 drops (not more) of the urine to be examined are added. The fluid is then heated to boiling, kept at this temperature for from one to two minutes and allowed to cool spontaneously. In the presence of dextrose the entire body of the solution will be filled with a precipitate which may be red, yellow or green. Urine containing 0.08 per cent. of dextrose gives a very positive reaction with this test.

Scopolamin-Morphin for Chronic Painful Affections.—Schlesinger and Plesch reported separately at a meeting of the Vienna *Gesellschaft für innere Medizin und Kinderheilkunde*, Feb. 11, 1909, on the use of scopolamin-morphin in chronic affections accompanied by such incessant or spasmodic pain or suffocation that morphin otherwise has to be given as a routine measure. Extremely small doses suffice, and no inconveniences were observed even when this combination was given daily for weeks and months. One of Plesch's patients was a tabetic with crises of pain in the extremities so severe that 0.02 gm. (0.3 grain) morphin was regularly required, but a single dose, representing 0.0008 scopolamin and 0.0075 gm. morphin, proved even more effectual, and since then he has found half this dosage sufficient. The same dose promptly relieves another patient with asthma and he wakes from the refreshing sleep induced without vomiting or the headache that used to follow the large doses of morphin required to relieve the suffocation. Schlesinger uses a 0.0004 per cent. solution of scopolamin, injecting subcutaneously one or two Pravaz syringefuls, accompanied by a little morphin. The relief from pain is almost immediate, and the patients say they feel better than when they used to have an injection of 0.2 or 0.3 gm. of morphin a day. The customary dose of morphin can be reduced to one-tenth when accompanied by the scopolamin, without the patient's suffering from the lack of the accustomed drug. He warns, however, that the mixtures must be freshly made, rejecting those with a turbid aspect. His experience suggests that this combination may prove useful in treating morphin addiction.

Ionic Potential a Factor in Toxicity.—That a relation exists between the toxic action of any ion and the ease with which it parts with its electric charge, has been shown by Mathews (*Jour. Biological Chemistry*, February, 1909), who proved that the amount of action any ion can exert on protoplasm depends primarily on the amount of available potential energy it contains. The fact of a direct relationship between the toxicity of any ion and its content of available potential energy (*i. e.*, its valence, its ionic potential), is now well established by experiments. Pond, however, threw doubt on this hypothesis in consequence of certain experiments to determine the power of various salts to inhibit the action of lipase on ethyl butyrate. Nicoll has reviewed the work of Pond and shows that his conclusions were incorrect because he did not take into consideration the solubility of the salts in ethyl butyrate. Unless the salts were soluble in ethyl butyrate they could not interfere with the action of the lipase which must enter into solution in the fat before it can decompose it. Nicoll concludes that the power of the nitrate salts of various metals to inhibit the action of lipase on ethyl butyrate is a function chiefly of the energy content or ionic potential of the cations (metals). Zinc alone occupies a markedly abnormal position. It is suggested that some of the exceptions noted by various observers in the toxic order of the salt toward various cells, may be due in part to the fact that only the concentration of the salts in water, not that in protoplasm, has been considered, whereas the concentration in the protoplasm is the effectual concentration.

Tissue Antisepsis with Reference to Animal Infection.—At a recent meeting of the Therapeutic and Pharmacologic Section of the Royal Society of Medicine (*Proceedings of the Royal Society of Medicine*, February, 1909), Dr. A. R. Cushny pointed out the failure to realize the hopes of a successful internal bactericidal treatment of infections aroused by the success of surgical antisepsis. Bacteria are more resistant to chemical germicides than are the tissues, so that efficient bactericides cannot be introduced into the blood without killing the patient and their activity *in vitro* is much reduced in the presence of the colloids of the blood and tissues. Even in the alimentary canal evacuation has proved more satisfactory than antisepsis. The attempt to disinfect the lungs by inhalation is frustrated by danger of injury to those delicate tissues and by the respiratory reflexes which restrict the entrance of irritant vapors. Cushny, therefore, discredits the ozone, creosote and similar treatments. In contradistinction to the failure of specific treatment in diseases in which vegetable organisms (bacteria) are the infectious agents, real specifics have been found in malaria and syphilis, the causes of which are animal organisms. Of late sleeping sickness, also due to an animal organism, has been shown to be susceptible to specific treatment. Trypanosomes are especially sensitive to the members of the arsenic group, and, as Cushny's experiments prove, are more easily killed by these agents than are ordinary protozoa. Since the protozoa rapidly become immune to toxic agents, prompt use of efficient doses and the coincident use of several agents rather than a single drug are indicated.

Crocodiles and Sleeping Sickness.—In *Nature*, February 18, appears a communication from Dr. E. A. Minchin, whose researches on tropical diseases are well known, concerning the connection of crocodiles with sleeping sickness. His attention was especially directed to the subject by a statement in a paper by Mr. James Cantlie that the crocodile is believed to be the alternative host of the organism causing sleeping disease of Africa. He says also that there seems to be a general impression that Professor Koch either observed or believed that the crocodile is a "reservoir" host for the *Trypanosoma gambiense*, and while Dr. Minchin does not know where Mr. Cantlie got the basis for his statement, he quotes from Prof. Koch's last work, *"Ueber meine Schlafkrankheits Expedition"* (Berlin: Dietrich Reimer, 1908), to show that Koch never made such a statement. On the contrary he expressly states that while the blood of the crocodile contains trypanosomes it is not the form that produces sleeping sickness, a fact which had been made known before by British observers. The bare fact that the crocodile may be thus infected is not any evidence for connecting this reptile with the disease, and it is inherently improbable, Minchin says, that any reptile should play such a part. It is possible and probable that a "reservoir" host for *T. gambiense* exists, but as yet none has been discovered. Only the human species has so far been found to be naturally infected with this organism, though many other mammals can be inoculated with it in the laboratory. Minchin publishes this communication in order to have the scientific facts in regard to the disease, so far as ascertained, correctly stated, which was not done by Cantlie.

Resection of the Utero-ovarian Plexus in Treatment of Hysteria.—G. Cavazzani of Venice since 1899 has done this operation in 22 cases, mainly for the hysteriform syndrome that follows the natural or artificial menopause, or for pure hysteria. The benefit was always prompt and constant. He gives the details of the 22 cases in a communication to the *Riforma Medica*, Dec. 7, 1908, page 1354. In one case there was evidently regeneration of some of the fibers of the plexus later, as the disturbances recurred after an intercurrent typhoid fever, with symptoms of inflammation in the left hip joint, abscesses and furuncles on the same leg. The segment of the sympathetic involved was resected anew and the ovary, found much degenerated, was also removed. This was followed by subsidence of the false coxitis and restoration to normal in every respect. His patients were between 20 and 35. Another patient presented the syndrome of hysterotraumatic kyphosis, a scoliotic sciatica on a base of hysteria, with intolerable pain until cured by resection of the plexus. Ruggi would restrict the operation to morbid conditions in the internal genitals in women inclined to neuroses and hysteria; but Cavazanni operates on hysterics irrespective of the condition of the internal genitals, and his constant success has confirmed him in this principle. He gives the bibliography of the subject from Jaboulay and Ruggi in 1899 to Lasanna and Ginevra in 1907.

Tardy Fatal Complications of Plague.—De Leon writes to the *Semana Medica* to relate two cases in which the patients had improved under serotherapy and were apparently far on the road to recovery when brain and spinal cord symptoms developed and rapidly proved fatal. He is inclined to believe that the effect of the serotherapy had worn off by this time, thus allowing the plague bacilli still present in the organism to produce these fatal complications even although the bacilli were notably attenuated. Such cases as these suggest the necessity for continuing the serum treatment longer or else increasing the dosage beyond that which is usually deemed sufficient.

Association News

OFFICIAL CALL

Sixtieth Annual Session of the American Medical Association, Atlantic City, N. J., June 8-11, 1909

The sixtieth annual session of the American Medical Association will be held on Tuesday, Wednesday, Thursday and Friday, June 8, 9, 10 and 11, 1909, at Atlantic City, N. J.

The House of Delegates will convene at 10 a. m., Monday, June 7. In the House, the representation of the various constituent associations for the years 1907, 1908 and 1909 is as follows:

Alabama	3	Nebraska	2
Arizona	1	New Hampshire	1
Arkansas	2	New Jersey	3
California	3	New Mexico	1
Colorado	2	New York	11
Connecticut	2	Nevada	1
Delaware	1	North Carolina	3
Dist. Columbia	1	North Dakota	1
Florida	1	Ohio	6
Georgia	2	Oklahoma	2
Hawaii	1	Oregon	1
Idaho	1	Pennsylvania	8
Illinois	7	Rhode Island	1
Indiana	4	South Carolina	2
Iowa	3	South Dakota	1
Kansas	3	Tennessee	2
Kentucky	3	Texas	5
Louisiana	2	Utah	1
Maine	1	*Vermont*	1
Maryland	2	Virginia	3
Massachusetts	6	Washington	1
Michigan	4	West Virginia	1
Minnesota	2	Wisconsin	3
Mississippi	2	Wyoming	1
Missouri	4	Philippine Islands	1
Montana	1		

The twelve sections of the American Medical Association, the Medical Department of the Army, the Medical Corps of the Navy and the Public Health and Marine-Hospital Service are entitled to one delegate each.

The General Meeting, which constitutes the opening exercises of the scientific functions of the Association, will be held at 10:30 a. m., Tuesday, June 8.

The Registration Department will be open from 8:30 a. m. until 5 p. m., on Monday, Tuesday, Wednesday and Thursday, June 7, 8, 9 and 10, and from 9 to 10 a. m., on Friday, June 11.

HERBERT L. BURRELL, President.

GEORGE H. SIMMONS, General Secretary.

ATLANTIC CITY SESSION

Announcement of Local Committees and Section Headquarters for the Approaching Convention

The Trustees' Committee of the American Medical Association makes the following announcement as to the local committees, and of the section headquarters. As yet they are not prepared to make the report with reference to the meeting places; this, however, will be done at an early date.

LOCAL ENTERTAINMENT COMMITTEE

Dr. J. A. Joy	Chairman
Dr. E. H. Harvey	Treasurer
Dr. E. J. Porteous	Secretary

SUBCOMMITTEES

Special entertainments	Dr. Emery Marvel, chairman
Ladies' entertainments	Dr. Clara Bartlett, chairman
Alumni reunion	Dr. Francis Burnett, chairman
Section dinners	Dr. A. L. Atherton, chairman
Hotels	Dr. W. E. Jonah, chairman
Badges	Dr. E. C. Chew, chairman
Halls and meeting places	Dr. T. G. Dunlap, chairman
A. M. A. Bureau of Information	Dr. M. S. Ireland, chairman
Postoffice, telephone, telegraph	Dr. S. Barbash, chairman
Registration	Dr. J. C. Mevay, chairman
Scientific exhibit	Dr. I. E. Leonard, chairman
Commercial exhibit	Will C. Braun (Chicago) chairman
Program	Dr. George Scott, chairman
Printing	Dr. B. R. Lee, chairman
Section meetings	Dr. W. P. Conaway, chairman
Finance	Dr. W. B. Stewart, chairman
Atlantic City Publicity Bureau	Mr. George S. Lenhart, secretary
A. M. A. Daily Bulletin	Dr. E. Guion, Asst. Editor

HEADQUARTERS

General Headquarters	Marlborough-Blenheim
Practice of Medicine	Hotel Dennis
Surgery and Anatomy	Hotel Chalfonte
Obstetrics and Diseases of Women	Haddon Hall
Diseases of Children	Hotel Traymore
Nervous and Mental Diseases	Hotel Brighton
Hygiene and Sanitary Science	Hotel Seaside
Pharmacology and Therapeutics	Hotel Chelsea

Ophthalmology	Hotel Rudolf
Laryngology and Otology	Hotel St. Charles
Cutaneous Medicine and Surgery	Hotel Shelburne
Pathology and Physiology	Hotel Windsor
Stomatology	Hotel Royal Palace

PHILIP MILLS JONES, San Francisco.
WISNER R. TOWNSEND, New York City.
PHILIP MARVEL, Chairman, Atlantic City, N. J.
Trustees' Committee of Arrangements.

THE SCIENTIFIC EXHIBIT

Notice of Awards of Prizes and Plans for Atlantic City Display

The prospects of the Scientific Exhibit for the Atlantic City Session are most flattering. Generous contributions are already assured from Philadelphia, New York and Boston. To prospective exhibitors it may be said that as a rule serial exhibits in illumination of some phase of pathology or experimental investigation, prove most instructive. To be sure, very rare specimens of whatever sort are acceptable.

To stimulate wholesome competition the plan of a year ago will be followed, of granting awards of honor to a few exhibitors presenting unusually meritorious work.

Diplomas of Honor.—To a very limited number of institutions or individuals presenting exhibits of very superior merit, the committee on awards will grant illuminated diplomas bearing engravings of Harvey, Pasteur, Koch and Davis, formally signed by officials of the Association.

Gold Medals.—For the best exhibit of Research Work, and for the best tuberculosis exhibit.

The latter, however, must comply with the following requirements: (a) The exhibit must be comprehensive and complete in elucidating the whole tuberculosis problem, in a manner plain and convincing to the lay mind; covering the causation, nature, prevention and cure of the disease. (b) Stability, compactness and adaptability for installation in railway stations, postoffice buildings and public libraries.

The usual tuberculosis exhibits are cumbersome and expensive to maintain. Necessarily they have only been presented in large cities, and then at long intervals and for brief periods. It is hoped to develop a model exhibit, which will occupy small space and can be maintained constantly at small expense by public health authorities in the public buildings of smaller cities.

FRANK B. WYNN, Director, Indianapolis.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed.

CAUSES AND CHARACTERISTICS OF PETECHIÆ

To the Editor:—1. Would any of the exanthemata cause ulceration on external surfaces or hemorrhages from the mucous membrane? 2. Are such ulcerations liable to occur in purpura? 3. Are petechial spots and ecchymoses finally developing into ulcers characteristic of purpura? X. Y. Z.

ANSWER.—1. The exanthemata, with the exception of variola and varicella, are rarely followed by ulceration. In malignant cases petechiæ and ecchymoses as well as hemorrhages from the mucous membrane may occur, but such cases are usually fatal before ulceration has taken place.

2. Ulceration is not a complication of purpura. If there is swelling and ulceration scorbutus should be suspected rather than purpura.

3. Petechiæ and ecchymoses are the characteristic skin lesions of purpura, but seldom or never ulcerate.

TRANSACTIONS OF CONGRESS ON TUBERCULOSIS

Several readers ask when the "Transactions of the International Congress on Tuberculosis" will be issued. Dr. John S. Fulton, (Colorado Bldg., Washington, D. C.), secretary-general of the congress, writes that the transactions will be ready early in May. They will appear in six volumes of approximately four thousand pages. Active members of the congress will receive them without cost. The price to non-members will be fifteen dollars per set.

SCARLET RED IN MEDICINE

To the Editor:—Please give me information regarding the dye called scarlet red. B. K. ELLIS, Greeley, Colo.

ANSWER.—Scarlet red is said to be amido-azo-touol-azo-beta-naphthol. It is a reddish-brown powder, insoluble in water, sparingly in benzol and acetone and cold alcohol, more readily soluble in hot alcohol, easily soluble in chloroform, fats and phenols, sparingly soluble in cold paraffin but readily in warm. Fischer found that this substance exerted a chemotactic influence on epithelial tissue, causing it to proliferate in an atypical way, suggesting carcinoma. (See editorial in THE JOURNAL A. M. A., Nov. 10, 1906, p. 1566.) Recently this power of causing proliferation of the epithelium has led to its application in the *treatment of* burns and injuries complicated by loss of considerable areas of skin. The dye can be made into an ointment by rubbing up with the ointment base or with oil with gentle heat. The following formula is given (*Vierteljahresschrift für praktische Pharmazie,* 1908, No. 4) ·

℞.

Rubri scarlatini	1—2	gr. xv—gr. xxx
Petrolati.		
Adipis lanæ hydrosi āā ad	20	ʒv

M. et f. ung. Sig.: For external use.

The Public Service

Army Changes

Memorandum of changes of stations and duties of medical officers, U. S. Army, week ending March 27, 1909:

Lewis, W. F., major, relieved from duty at Fort Thomas, Ky.; will sail from San Francisco, June 5, 1909, for Philippine service.

Pierson, R. H., captain, granted leave of absence for 30 days.

Siler, J. F., capt., relieved from duty at Fort Jay, N. Y., and ordered to duty at the Medical Supply Depot, New York.

Stone, J. H., major, relieved from duty at the U. S. Military Prison, Fort Leavenworth, Kan., and ordered to Fort Sam Houston, Texas, for duty.

Woodson, R. S., major, ordered, on arrival at San Francisco, to proceed to Fort DuPont, Del., for duty.

Rand, I. W., major, when relieved at Fort DuPont, Del., ordered to Fort Hancock, N. J., for duty.

Roberts, W. M., capt., when relieved at Fort Hancock, N. J., ordered to Fort Thomas, Ky., for duty.

Shillock, Paul, major, granted leave of absence for 10 days.

Porter, R. S., capt., relieved from duty at Fort Huachuca, Ariz., and ordered to Fort Bayard, N. M., for duty at the Army General Hospital.

Reasoner, M. A., lieut., granted leave of absence for one month.

Marrow, C. E., major, granted leave of absence for three months, with permission to apply for an extension of one month, when relieved from duty on the *McClellan.*

Rhoads, T. L., major, relieved from duty in the Philippines Division; will proceed to San Francisco for orders.

Willcox, Chas., *major., ordered to duty at Fort Totten N. Y., on* return from Cuba.

Patterson, R. U., capt., ordered to duty with Co. C, H. C., at the Army General Hospital, Washington, D. C., on return from Cuba.

Richards, R. L., capt., ordered to duty at Fort Wayne, Mich., on return from Cuba.

Field, P. C., capt., when relieved at Fort Wayne, Mich., ordered to Fort Slocum, N. Y., for duty.

Woodruff, C. E., Shillock, Paul, and Mason, C. F., majors, ordered to report at Washington, D. C., for examination for promotion.

Dean E. A., and Usher, F. M. C., majors, relieved from duty in Philippines Division; will sail June 15 from Manila, P. I., for San Francisco, for orders.

Lord, L. W., M. R. C., relieved from duty at Fort Riley, Kan., April 13, 1909; ordered to his home and relieved from active duty in the M. R. C.

Wren, R. J., M. R. C., honorably discharged March 23, 1909; his services being no longer required.

Kennedy, J. S., M. R. C., when relieved at Fort Omaha, Neb., ordered to Ft. Sam Houston, Texas, for duty.

Parkman, W. E., M. R. C., honorably discharged from the service of the United States, his services being no longer required.

Navy Changes

Changes in the Medical Corps, U. S. Navy, for week ending March 27, 1909:

The following assistant surgeons have been detached from instructions at Naval Medical School, Washington, D. C., and ordered as follows:

Clifton, A. L., to Naval Hospital, Philadelphia.
Brown, E. W., to Naval Medical School, Washington, D. C.
Thomas, G. C., to Naval Recruiting Station, Omaha.
Mann, W. L., to temporary duty on *Independence,* thence to the *Tennessee.*
Cottle, G. F., to Naval Hospital, Annapolis, Md.
Sutton, D. G., to Naval Academy.
Giltner, H. A., to Naval Training Station, San Francisco.
Cuthbertson, R., to Naval Hospital, Mare Island, Cal.
Phelps, J. R., to the *Yankton.*
Sinclair, J. A. B., to Naval Proving Ground, Indian Head, Md.
Moran, C. L., to Navy Yard, Boston.
Turner, H. W. B., to Naval Medical School Hospital for treatment.

The following officers have been detached from places opposite their names and ordered to instruction at Naval Medical School, Washington, D. C., April 15:

Cohn, I. F., asst.-surg., from Naval Hospital, Mare Island.
Reed, E. U., asst.-surg., from Naval Training Station, San Francisco.
Robnett, A. H., asst.-surg., from Recruiting Station, Omaha.

Extinge, E O J, asst surg, from Naval Hospital, New York
Blackwood, N J surg from the *New Jersey*
Smith, C G, P A surg from Naval Hospital, Portsmouth
Grayson C T P A surg from Naval Dispensary, Washington
Woods, F L asst surg, from the *Kearsarge*
Brooks F H, asst surg, from Naval Recruiting Station, Baltimore

Richards, T W, surgeon, detached from the *Kansas* and ordered to temporary duty in the bureau of medicine and surgery, Navy Department

Grunwell, A G, surgeon, detached from the *Kentucky* and ordered to the *Kansas*

Rennie, W H, P A surgeon, detached from the *Illinois* and ordered to the *Rhode Island*

Stalnaker, P R, P A surgeon, detached from duty at the Naval Hospital, Annapolis, Md, and ordered to Navy Yard Washington, D C

Kaufman J B asst surg, detached from the *Tennessee* and ordered to the Naval Training Station San Francisco

Biello J A, asst surg, detached from the Naval Hospital, Mare Island Cal and ordered to the *Maryland*

Phillips E W acting asst surgeon, ordered to duty at the Naval Hospital, New York

Stuart, A P A surgeon, detached from the *Yankton*, ordered to *New Jersey*

Jones E L, asst surgeon, detached from *Maryland*, to duty *Independence*

De Valin, C M, surgeon, detached from *Washington* home to await orders

Field J G surgeon detached Naval Training Station, San Francisco and ordered to the *Washington*

Richardson R R P A surgeon, to duty at Naval Hospital, Portsmouth, N H

Stepp, J, P A surgeon, ordered to Naval Training Station, Newport R I

Whitmore G B, asst surgeon, orders of March 17 modified, ordered to Naval Recruiting Station, Baltimore

Holloway, J H P A Surgeon, detached from the *Franklin*, to duty on the *Connecticut*

Pickrell, G, surgeon, ordered to temporary duty in the Bureau of Medicine and Surgery, Navy Department in connection with the *Solace*

Old E H H, P A surgeon, detached from Naval Training Station, Newport, R I, to duty at Naval Dispensary, Washington, D C

Public Health and Marine-Hospital Service

List of changes of stations and duties of commissioned and other officers of the Public Health and Marine Hospital Service for the seven days ended March 24, 1909

Wasdin, Eugene, surgeon, granted 1 month s leave of absence from March 22, 1909, on account of sickness

White J H, surgeon, directed to proceed to Gulf Quarantine, Biloxi, Miss, on special temporary duty

Gardner, Charles H, P A surgeon, directed to proceed to Washington D C, and report to chairman of board of medical examiners to determine fitness for promotion to the grade of surgeon

Blue, Rupert, P A surgeon, directed to report to chairman of board of medical examiners to determine fitness for promotion to the grade of surgeon

Oakley J H, P A surgeon, directed to proceed to San Francisco and report to chairman of board of medical examiners to determine fitness for promotion to the grade of surgeon

Sprague, Ezra K, P A surgeon, directed to proceed to Washington D C, and report to chairman of board of medical examiners to determine fitness for promotion to the grade of surgeon

Heiser, Victor G, P A surgeon, leave of absence granted Oct 12 1908, for 30 days, amended to read 17 days en route to station

Amesse, J W, P A surgeon, granted 7 days' leave of absence from March 23 1909

Boggess, J S P A surgeon, granted 7 days' leave of absence from March 21 1909

Roberts, Norman, P A surgeon, granted 3 days' leave of absence from March 18 1909, under paragraph 191 Service Regulations

Roberts, Norman P A surgeon, granted 7 days' leave of absence from March 21, 1909

Collins G L P A surgeon, granted 3 days' leave of absence from March 18 1909, under paragraph 189, Service Regulations

Wightman W M, P A surgeon granted 25 days' leave of absence from Jan 23, 1909, on account of sickness

Wollenberg R A C asst surgeon, granted 2 days' leave of absence from Feb 26, 1909, on account of sickness

Krulish, Emil, asst surgeon, granted 5 days' leave of absence from March 19, 1909

Stiles, Charles Wardell, chief division of zoology Hygienic Laboratory, granted 2 days' leave of absence in January, 1909, and 1 day's leave of absence, Feb 1, 1909, under paragraph 211, Service Regulations

Porter J Y, quarantine inspector, directed to proceed to Mayport, Fla, on special temporary duty

Frissell, C M, acting asst surgeon, granted 21 days' leave of absence from Feb 8 1909

Reifel J W, acting asst surgeon, granted 7 days' leave of absence from March 2 1909, under paragraph 191 Service Regulations

Tarbell, B C acting asst surgeon, granted 1 day s leave of absence, March 28, 1909

BOARDS CONVENED

Board of medical officers convened to meet at the Marine Hospital San Francisco, April 5 1909 for the examination of certain passed assistant surgeons to determine their fitness for promotion to the grade of surgeon Detail for the board Surgeon H W Austin, chairman, Surgeon S D Brooks, P A Surgeon W C Hobdy recorder March 20 1909

Board of medical officers convened to meet at the bureau, Washington D C, April 5, 1909, for the examination of certain passed assistant surgeons to determine their fitness for promotion to the grade of surgeon Detail for the board Asst Surgeon General W J Pettus chairman Asst Surgeon General J M Eager, Asst Surgeon General J W Kerr, recorder March 24 1909

Boards of medical officers were convened to meet on April 5, 1909, for the purpose of making physical examination of applicants for the position of cadet in the Revenue Cutter Service, as follows.

Boston Surgeon L L Williams, chairman; P A Surgeon T W Salmon, recorder

New York P A Surgeon, C W Vogel, chairman; Asst Surgeon Lasher Hart, recorder

Philadelphia Surgeon J M Gassaway, chairman; Acting Asst-Surgeon H Horning, recorder

Baltimore Surgeon W P McIntosh, chairman; P A Surgeon M K Gwyn, recorder

Washington, D C, Asst Surgeon General H D Geddings chairman, P A Surgeon J W Trask, recorder

Norfolk, Va Surgeon C P Wertenbaker, chairman; Acting Asst-Surgeon R W Browne recorder

Savannah, Ga Surgeon F W Mead, chairman, Acting Asst-Surgeon A B Cleborne, recorder

Mobile, Ala Surgeon G M Guiteras, chairman, Acting Asst-Surgeon J O Rush, recorder

New Orleans Surgeon J H White, chairman, P A Surgeon H W Wickes recorder

Galveston, Tex · P. A Surgeon G M Corput, chairman; Acting Asst Surgeon W H Gammon, recorder

Detroit · Surgeon R M Woodward, chairman; P A Surgeon M J White, recorder

Chicago Surgeon G B Young, chairman; P. A Surgeon R H. Creel recorder

Seattle, Wash P A Surgeon M W Glover, chairman, Asst.-Surgeon C W Chapin, recorder

San Francisco P A Surgeon W. W King, chairman; P A. Surgeon J D Long, recorder

Health Reports

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General Public Health and Marine Hospital Service, during the week ended March 26, 1909

SMALLPOX—UNITED STATES

Alabama Montgomery, March 5 12 1 death
California San Francisco Feb 27 March 6 1 case.
Kansas Topeka, Feb 27 March 13, 18 cases
Kentucky Covington, March 6 13, 2 cases
Massachusetts New Bedford, March 6 17 1 case.
Missouri Liberty, Jan 15 March 11, 20 cases
Montana Butte, Jan 2 9, 2 cases, March 2 9, 1 case
Nebraska South Omaha, Feb 20 27 5 cases
Tennessee Memphis Feb 27 March 13, 33 cases, 1 death, Nashville March 6 13 2 cases
Texas El Paso, March 2 9, 2 cases, San Antonio, March 6 13, 2 cases
Utah Salt Lake City, Feb 1 28, 85 cases
Washington Camas, Dec 29 March 8, 18 cases
Wisconsin Appleton, March 1 13, 1 case

SMALLPOX—INSULAR

Philippine Islands Manila, Jan 16 Feb 3, 10 cases, 5 deaths

SMALLPOX—FOREIGN

Africa Tripoli, Feb 13 March 6 11 cases, 3 deaths
Arabia Aden, Feb 1 15, 7 deaths
Brazil Bahia, Jan 16 Feb 13, 53 cases, 5 deaths Para, Feb 13 27, 2 cases, 1 death, Pernambuco, Jan 1 31, 35 deaths; Rio de Janeiro, Jan 18 Feb 14 121 cases, 82 deaths
Canada Halifax, Feb 26 March, 6 cases, Vancouver, Feb 1 28, 3 cases, Yarmouth, March 7 20, 28 cases
China Hongkong Jan 2 23, 3 cases, 2 deaths
Cuba Cienfuegos, Feb 28 March 6, 1 case
Ecuador Guamonte Feb 15, present
France Nice, Jan 1 31, 1 case, Paris, Feb 13 20, 3 cases
Great Britain Bristol Feb 20 27, 1 case, 1 death
India Bombay, Feb 9 16, 14 deaths, Calcutta, Jan 30 Feb 6, 202 deaths, Madras, Feb 6 12, 3 deaths
Indo China Saigon, Jan 23 30, 2 cases 1 death
Italy Catania, Feb 21 March 7, 5 cases, Naples, Feb 21 28, 20 cases, 3 deaths Palermo, Jan 20 27, 8 cases 2 deaths
Japan Kobe Feb 6 13 4 cases, 1 death
Java Batavia, Jan 23 Feb 6 7 cases
Mexico Guadalajara, Feb 18 25, 2 deaths; Monterey, Feb 28-March 7, 1 death
Russia Odessa, Oct 31 Feb 13, 37 cases, 8 deaths, Reval, Jan 1 31, 1 case, Riga Feb 13 20, 1 case, St Petersburg Feb 6 13, 5 cases, 1 death, Warsaw, Jan 9 16, 6 deaths

YELLOW FEVER

Barbados General, Feb 25 March 5, 2 cases; Bridgetown, 1 case; Spightstown 1 case
Brazil Bahia, Jan 16 Feb 13 51 cases, 16 deaths, Manaos, Jan 30 Feb 20, 5 deaths, Para, Feb 6 27, 11 deaths
Ecuador Guayaquil, Jan 8 Feb 6, 10 deaths
Mexico Merida, vicinity, March 6 13 1 case, 1 death

CHOLERA—INSULAR

Philippine Islands Provinces, Jan 16 Feb 6, 361 cases, 214 deaths

CHOLERA—FOREIGN

China Hongkong, Dec 26 Jan 16, 2 cases, 2 deaths
India Bombay, Feb 9 16, 2 deaths, Calcutta, Jan 31 Feb 6 12 deaths, Madras, Feb 6 12, 1 death, Rangoon, Jan 31 Feb 6 13 cases
Russia Jaroslav, March 1, present, St Petersburg, March 1 5, 50 cases, 19 deaths

PLAGUE

Brazil Bahia, Jan 16 Feb 13, 22 cases, 13 deaths, Rio de Janeiro, Jan 17 Feb 14, 13 cases, 5 deaths
China Hongkong Dec 26 Jan 2, 1 case, 1 death
Chile Iquique Feb 1, 12 cases
Ecuador Babahoye, Feb 15, 3 cases; Guayaquil, Jan 8 Feb 6, 17 deaths, Milagro, Jan 18 1 case, Nisag Feb 15 7 cases
India Bombay, Feb 9 16, 45 deaths, Calcutta, Jan 31 Feb 6, 10 cases Rangoon, 14 deaths
Indo China Saigon, Jan 23 30 2 cases 2 deaths
Peru General, Jan 29 Feb 6, 66 cases 18 deaths; Callao, 4 cases, 2 deaths, Lima, 5 cases, 3 deaths
Turkey in Asia Jiddah, Feb 22 28, 24 cases, 22 deaths.

Ophthalmology	Hotel Rudolf
Laryngology and Otology	Hotel St. Charles
Cutaneous Medicine and Surgery	Hotel Shelburne
Pathology and Physiology	Hotel Windsor
Stomatology	Hotel Royal Palace

PHILIP MILLS JONES, San Francisco.
WISNER R. TOWNSEND, New York City.
PHILIP MARVEL, Chairman, Atlantic City, N. J.
Trustees' Committee of Arrangements.

THE SCIENTIFIC EXHIBIT

Notice of Awards of Prizes and Plans for Atlantic City Display

The prospects of the Scientific Exhibit for the Atlantic City Session are most flattering. Generous contributions are already assured from Philadelphia, New York and Boston. To prospective exhibitors it may be said that as a rule serial exhibits in illumination of some phase of pathology or experimental investigation, *prove most instructive. To be sure,* very rare specimens of whatever sort are acceptable.

To stimulate wholesome competition the plan of a year ago will be followed, of granting awards of honor to a few exhibitors *presenting unusually meritorious* work.

Diplomas of Honor.—To a very limited *number of* institutions or individuals presenting exhibits of very superior merit, the committee on awards will grant illuminated diplomas bearing engravings of Harvey, Pasteur, Koch and Davis, formally signed by officials of the Association.

Gold Medals.—For the best exhibit of Research Work, and for the best tuberculosis exhibit.

The latter, however, must comply with the following requirements: (a) The exhibit must be comprehensive and complete *in elucidating the whole tuberculosis problem, in a* manner plain and convincing to the lay mind; covering the causation, nature, prevention and cure of the disease. (b) Stability, compactness and adaptability for installation in railway stations, postoffice buildings and public libraries.

The usual tuberculosis exhibits are cumbersome and expensive to maintain. Necessarily they have only been presented in large cities, and then at long intervals and for brief periods. It is hoped to develop a model exhibit, which will occupy small space and can be maintained constantly at small expense by public health authorities in the public buildings of smaller cities.

FRANK B. WYNN, Director, Indianapolis.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed.

CAUSES AND CHARACTERISTICS OF PETECHIÆ

To the Editor:—1. Would any of the exanthemata cause ulceration on external surfaces or hemorrhages from the mucous membrane? 2. Are such ulcerations *liable to occur in purpura?* 3. Are petechial spots and ecchymoses finally developing into ulcers characteristic of purpura? X. Y. Z.

ANSWER.—1. The exanthemata, with the exception of variola and varicella, are rarely followed by ulceration. In malignant cases petechiæ and ecchymoses as well as hemorrhages from the mucous membrane may occur, but such cases are usually fatal before ulceration has taken place.

2. *Ulceration is not a complication of purpura.* If there is swelling and *ulceration scorbutus* should be suspected rather than purpura.

3. Petechiæ and ecchymoses are the characteristic skin lesions of purpura, but seldom or never ulcerate.

TRANSACTIONS OF CONGRESS ON TUBERCULOSIS

Several readers ask when the "Transactions of the International Congress on Tuberculosis" will be issued. Dr. John S. Fulton, (Colorado Bldg., Washington, D. C.), secretary-general of the congress, writes that the transactions *will be ready* early in May. They will appear in six volumes of approximately four thousand pages. Active members of the congress will receive them without cost. The price to non-members will be fifteen dollars per set.

SCARLET RED IN MEDICINE

To the Editor:—Please give me information rega
called scarlet red. B. K. ELLIS, G

ANSWER.—Scarlet red is said to be amido-azo-toluol
thol. It is a reddish-brown powder, insoluble in w
in benzol and acetone and cold alcohol, more readily
alcohol, easily soluble in chloroform, fats and ph
soluble in cold paraffin but readily in warm. Fisc
this substance *exerted a chemotactic* influence on
causing it to proliferate in an atypical way, sugge
(See editorial in THE JOURNAL A. M. A., Nov. 10.
Recently this power of causing proliferation of th
led to its application in the treatment of burns a
plicated by loss of considerable areas of skin.
made into an ointment by rubbing up with the
with oil with gentle heat. The following formula
jahresschrift für praktische Pharmazie, 1908, No.

℞.
Rubri scarlatini .... 1 } —2
Petrolati.
Adipis lanæ hydrosi āā ad.............. 20 }
M. et f. ung. Sig.: For external use.

The Public Service

Army Changes

Memorandum of changes of stations and duties
U. S. Army, week ending March 27, 1909:

Lewis, W. F., major, relieved from duty at
will sail from San Francisco, June 5, 1909, for

Pierson, R. H., captain, granted leave of abse

Siler, J. F., *capt., relieved from duty at F*
ordered to duty at the Medical Supply Depot, N

Stone, J. H., major, relieved from duty at
Prison, Fort Leavenworth, Kan., and ordered to
Texas, for duty.

Woodson, R. S., major, ordered, on arrival
proceed to Fort DuPont, Del., for duty.

Rand, I. W., major, when relieved at Fort
to Fort Hancock, N. J., for duty.

Roberts, W. M., capt., when relieved at
ordered to Fort Thomas, Ky., for duty.

Shillock, Paul, major, granted leave of abse

Porter, R. S., capt., relieved from duty at
and ordered to Fort Bayard, N. M., for duty
Hospital.

Reasoner, M. A., *lieut.,* granted leave of a

Marrow, C. E., major, granted leave of abs
with permission to apply for an extension of
lieved from duty on the *McClellan.*

Rhoads, T. L., major, relieved from duty
vision; will proceed to San Francisco for or

Willcox, Chas., major., ordered to duty at
return from Cuba.

Patterson, R. U., capt., ordered to duty wi
Army General Hospital, Washington, D. C.,

Richards, R. L., capt., ordered to duty at
return from Cuba.

Field, P. C., capt., when relieved at Fort
to Fort Slocum, N. Y., for duty.

Woodruff, C. E., Shillock, Paul, and Maso
to report at Washington, D. C., for examin

Dean E. A., and Usher, F. M. C., major
Philippines Division; will sail June 15 fro
Francisco, for orders.

Lord, L. W., M. R. C., relieved from d
April 13, 1909; ordered to his home and
in the M. R. C.

Wren, R. J., M. R. C., honorably discha
services being no longer required.

Kennedy, J. S., M. R. C., when relieved
dered to Ft. Sam Houston, Texas, for du

Parkman, W. E., M. R. C., honorably
vice of the United States, his services be

Navy Changes

Changes in the Medical Corps, U. S. Na
27, 1909:

The following assistant surgeons have b
tions at Naval Medical School, Washingt
follows:

Clifton, A. L., to Naval Hospital, Phila
Brown, E. W., to Naval Medical School.
Thomas, G. C., *to Naval Recruiting Sta*
Mann, W. L., to temporary duty on *In*
Tennessee.
Cottle, G. F., to Naval Hospital, Annapo
Sutton, D. G., to Naval Academy.
Giltner, H. A., to Naval Training Statio
Cuthbertson, R., to Naval Hospital, Mare
Phelps, J. R., to the
Sinclair, J. A. B., to
Moran, C. L., to Nav
Turner, H. W. B., to N

The following officers have been detached
their names and ordered to instruction at N
Washington, D. C., April 15:

Cohn, I. F., asst.-surg., from Naval Hospital.
Reed, E. U., asst.-surg., from *Naval Trainin*
cisco.
Robnett, A. H., asst.-surg., from Recruiting

laria, etc.; tuberculosis, carcinoma, etc.; cardiovascular disease, disease of genital organs, organic nervous diseases, hysteria and epilepsy). (c) Trauma to head, "commotion insanity." (d) Nervous exhaustion.
2. Physiologic: Puberty, puerperal state, menopause, senility.
3. Moral: (a) Emotional strain; worry, grief, anger, domestic troubles, etc. (b) Imitation; hereditary predisposition usually present.

Influence of profession, occupation, climate, race.

GENERAL SYMPTOMATOLOGY OF INSANITY

Disorders of Sensation.—1. Qualitative Disorders: (a) Hallucinations, definition, of sight, of hearing, of taste, of smell, of cutaneous sensibility, of movement of body; due to what causes, occur in what psychoses, how influence patient? (b) Illusions, definition, describe varieties. 2. Disorders of Intensity: Hypesthesias, anesthesias, hyperesthesias. 3. Disorders of Sensory Tone: Hypalgesia, hyperalgesia, hyphedonia, hyperhedonia.

Disorders of Ideas or Memory Pictures.—1. Defective evolution of ideas, in idiots and imbeciles. 2. Disorders in durability of memory pictures. 3. Affective Disorders: (a) Depression, secondary or primary, in melancholy state; (b) exaltation, (c) irritability, (d) apathy, (e) mutability.

Disorders of Idea Associations.—1. Disorders of memory. 2. Disorders of attention. 3. Accelerated or diminished flow of ideas. 4. Incoherence. 5. (a) Delusions; of exaltation or depression, grandeur, persecution, negation, etc. (d) Imperative ideas. 6. Weakness of judgment.

Disorders of Actions.—1. Induced by sensory disorders, hallucinations and illusions. 2. Induced by defects of memory. 3. Induced by disorders of emotions, depression, anger, rage, apathy, etc. 4. Induced by disorders of idea associations.

Accompanying Physical Disorders in Insanity.—1, Motor; 2, sensory; 3, reflex; 4, trophic; 5, secretory and excretory; 6, vascular; 7, temperature disorders.

Reference Books for the Ninth Month: Church and Peterson, Nervous and Mental Diseases; Brower and Bannister, Manual of Insanity; Berkley, Mental Diseases; Clarke, Manual of Mental Diseases; Lewis (Bevan), Mental Diseases; Spitzka, Manual of Insanity; Savage and Goodall, Insanity and Allied Disorders; Dana, Nervous Diseases and Psychiatry.

Medical Education and State Boards of Registration

COMING EXAMINATIONS

Arizona: Phoenix, April 5-6. Sec., Dr. Ancil Martin.

Arkansas: Three boards, each at Little Rock, April 13. Regular Sec., Dr. F. T. Murphy, Brinkley; Homeopathic Sec., Dr. P. C. Williams, Texarkana; Eclectic Sec., Dr. A. J. Widener, Little Rock.

California: San Francisco, April 6. Sec., Dr. Charles L. Tisdale, Butler Bldg.

Colorado: Denver, April 6. Sec., Dr. S. D. VanMeter, 1723 Tremont St.

District of Columbia: Washington, April 13-16. Sec., Dr. George C. Ober, 210 B St., S. E.

Idaho: Boise, April 6-7. Sec., Dr. W. F. Howard, Pocatello.

Illinois: Northwestern University Bldg., Chicago, April 15-17. Sec., Dr. J. A. Egan, Springfield.

Minnesota: Old Capitol, St. Paul, April 6-9. Sec., Dr. W. S. Fullerton, 214 Am. National Bank Bldg.

Montana: The Capitol, Helena, April 6. Sec., Dr. W. C. Riddell.

New Mexico: Santa Fe, April 12. Sec., Dr. J. A. Massie.

North Dakota: Grand Forks, April 6-8. Sec., Dr. H. M. Wheeler.

Oklahoma: Guthrie, April 13. Sec., Dr. Frank P. Davis, Enid.

Utah: Salt Lake City, April 5-6. Sec., Dr. R. W. Fisher.

West Virginia: Huntington, April 13-15. Sec., Dr. H. A. Barbee, Point Pleasant.

Minnesota January Report

Dr. W. S. Fullerton, secretary of the Minnesota State Board of Medical Examiners, reports the written examination held at St. Paul, January 5-8, 1909. The number of subjects examined in was 10; total number of questions asked, 115; percentage required to pass, 75. The total number of candidates examined was 14, of whom 12 passed and 2 failed. Fourteen reciprocal licenses were issued at this examination. The following colleges were represented:

PASSED.

College	Year Grad.	Per Cent.
Northwestern University Medical School	(1908)	76.3
Rush Medical College	(1906)	81.4
Johns Hopkins University Medical School	(1907)	79.
Hamline University	(1908)	75.8
University of Minnesota,	(1906) 82, (1908)	78, 79,82.
University of Michigan	(1908)	82.
St. Louis University	(1908)	82.
McGill University, Quebec	(1908)	82.
Alexanders University, Helsingfors, Finland	(1902)	75.4

FAILED.

College	Year Grad.	Per Cent.
Louisville and Hospital Medical College	(1908)	64.5
Hamline University	(1907)	63.5

LICENSED THROUGH RECIPROCITY

College	Year Grad.	Reciprocity with
Bennett College of Eclectic Medicine and Surgery (1891) Iowa	(1908)	Illinois
Hahnemann Medical College, Chicago (1903) Indiana	(1908)	Illinois
Northwestern University Medical School	(1906)	Illinois
Rush Medical College	(1892)	Wisconsin
University of Iowa	(1905)	Iowa
Louisville Medical College	(1899)	Texas
University of Michigan	(1906)	Michigan
Kansas City Hahnemann Medical College	(1906)	Kansas
New York University Medical College	(1888)	Ohio
University Medical College, Kansas City	(1908)	Missouri
Medical College of Ohio	(1907)	Ohio
Toledo Medical College	(1905)	Illinois

South Dakota January Report

Dr. H. E. McNutt, secretary of the South Dakota Board of Medical Examiners, reports the written examination held at Sioux Falls, January 13-14, 1909. The number of subjects examined in was 12; total number of questions asked, 90; percentage required to pass, 75. The total number of candidates examined was 35, of whom 26 passed and 9 failed. The following colleges were represented:

PASSED

College	Year Grad.	Per Cent.
Rush Medical College,	(1901) (1904) (1906) (1908)	76; 84.1; 80.3, 85; 82.6.
Northwestern University Medical School,	(1905) (1906) (1907)	80.5; 81.7; 85; 78.8, 83.4.
College of Physicians and Surgeons, Chicago,	(1903) (1905) (1907)	77.1; 90.4; 76.7.
Hahnemann Medical College, Chicago	(1908)	77.1
University of Iowa	(1908)	75.9, 80.3, 84.7
University of Iowa, Homeopathic Dept	(1905)	82.1
Keokuk Medical College, College of Phys. and Surg.	(1908)	76.8
Louisville and Hospital Medical College	(1908)	80.6
University of Minnesota,	(1905) (1906) (1907)	79.4; 77.2, 83; 76.2
Creighton Medical College	(1908)	75.6, 80.8

FAILED

College	Year Grad.	Per Cent.
[illegible]	(1893)	59.
[illegible]	(1907)	71.5
[illegible] Medical School	(1908)	73.
College of Physicians and Surgeons, Chicago	(1908)	50.
Keokuk Medical College, College of Phys. and Surg.	(1908)	70.1
Sioux City College of Medicine	(1906)	58.8
University of Michigan	(1900)	74.
St. Louis Medical College	(1887)	73.
St. Louis College of Physicians and Surgeons	(1906)	60.

Utah January Report

Dr. R. W. Fisher, secretary of the *Utah State Board of Medical Examiners,* reports the written examination held at Salt Lake City, January 4-5, 1909. The number of subjects examined in was 20; total number of questions asked, 100; percentage required to pass, 75. The total number of candidates examined was 11, of whom 9 passed and 2 failed. Five reciprocal licenses were issued at this examination. The following colleges were represented:

PASSED

College	Year Grad.	Per Cent.
Denver and Gross College of Medicine	(1907)	76.7
Northwestern University Medical School,	(1904) (1908)	78.4; 79.1, 85.4.
Rush Medical College	(1908)	81.2, 82.2, 86.9
Jefferson Medical College	(1908)	79.4, 88.4

FAILED

College	Year Grad.	Per Cent.
University of Louisville	(1907)	64.7
Northwestern University Medical School	(1908)	73.

LICENSED THROUGH RECIPROCITY

College	Year Grad.	Reciprocity with
Denver and Gross College of Medicine	(1904)	Colorado
Rush Medical College	(1899)	Maine
University of Iowa	(1908)	Iowa
Omaha Medical College	(1902)	Colorado
Western Reserve University	(1888)	Iowa

Vermont January Report

Dr. W. Scott Nay, secretary of the Vermont State Board of Medical Registration, reports the written and oral examination held at Montpelier, January 12-14, 1909. The number of subjects examined in was 12; total number of questions asked, 95; percentage required to pass, 75. The total number of candidates examined was 12, of whom 10 passed and 2 failed. One candidate was licensed through reciprocity. The following colleges were represented:

PASSED

College	Year Grad.	Per Cent.
Maryland Medical College	(1906)	86.6
Harvard Medical School	(1907)	81.9
College of Physicians and Surgeons, Boston	(1904)	81.6
Jefferson Medical College	(1907)	86.5
Hahnemann Medical College, Philadelphia	(1871)	75.
University of the South	(1901)	88.1
University of Vermont, (1880) 75; (1902) 75;	(1908)	75, 85.1

FAILED

College	Year Grad.	Per Cent.
College of Physicians and Surgeons, Boston	(1899)	71.4
Laval University, Quebec	(1905)	70.1

LICENSED THROUGH RECIPROCITY

College	Year Grad.	Reciprocity with
Tufts College Medical School	(1907)	New Hamp.

Wisconsin January Report

Dr. J. V. Stevens, secretary of the Wisconsin Board of Medical Examiners, reports the written examination held at Milwaukee, *Jan. 12-14, 1909. The* number of subjects examined in was 22; total number of questions asked, 100; percentage required to pass, 75. The total number of candidates examined was 17, *of whom* 12 *passed*, 1 *failed and* 4 were conditioned. Twenty reciprocal licenses were issued at this examination. The following colleges were represented:

PASSED

College	Year Grad.	Per Cent.
Hahnemann Medical College, Chicago	(1908)	81.2
Northwestern University Medical School	(1908)	88.5
Johns Hopkins University Medical School, (1902) 86.1; (1907) 88.6;	(1908)	82.7, 91.
New York University Medical College	(1886)	91.4
Milwaukee Medical College	(1908)	78.6, 82.5, 95.6
Wisconsin College of Physicians and Surgeons	(1907)	81.2
Royal Frederiks University, Christiania, Norway	(1900)	82.

FAILED

College	Year Grad.	Per Cent.
Milwaukee Medical College	(1908)	62.4

CONDITIONED

College	Year Grad.
Milwaukee Medical College	(3, 1908)
Western University, London, Ontario	(1907)

LICENSED THROUGH RECIPROCITY

College	Year Grad.	Reciprocity with
Northwestern University Medical School,	(3, 1906) (1907) (1908)	Illinois
Rush Medical College	(1900) (2, 1906) (1907)	Illinois
College of Physicians and Surgeons, Chicago	(1907)	Illinosi
Chicago College of Medicine and Surgery	(1904) (1908)	Illinois
Bennett Coll. of Eclectic Medicine and Surgery	(1908)	Illinois
Kentucky School of Medicine	(1898)	Kentucky
Harvard Medical School	(1895)	New Jersey
University of Michigan	(1906)	Michigan
Hamline University	(1899)	Minnesota
Universtiy of Minnesota	(1904)	Minnesota
Ohio Medical University	(1906)	Ohio
Milwaukee Medical College	(1907)	N. Dakota

North Dakota January Report

Dr. H. M. Wheeler, secretary of the North Dakota State Medical Examining Board, reports the written examination held at Grand Forks, January 5-7, 1909. The number of subjects examined in was 14; percentage required to pass, 75. The total number of candidates examined was 10, of whom 7 passed and 3 failed. Five reciprocal licenses were issued at this examination. The following colleges were represented:

PASSED

College	Year Grad.	Per Cent.
University of Iowa (1905) 79;	(1908)	82.
University of Michigan	(1906)	88.
University of Minnesota	(1903)	81.
Bellevue Hospital Medical College	(1887)	76.
University of Toronto, Canada	(1880)	75.
Laval University, Quebec	(1905)	76.

FAILED

College	Year Grad.	Per Cent.
Hamline University	(1904)* (1907)*	
American Medical College, St. Louis	(1897)*	

LICENSED THROUGH RECIPROCITY

College	Year Grad.	Reciprocity with
Northwestern University Medical School	(1907)	Illinois
College of Physicans and Surgeons, Chicago	(1905)	Illinois
Detroit College of Medicine	(1907)	Michigan
University of Minnesota	(1907)	Minnesota
University of Toronto, Canada	(1907)	Minnesota

* Percentage not given.

Marriages

G. C. Black, M.D., Table Grove, Ill., to Miss Blanche Harris of St. Louis, March 16.

Charles F. Sterne, M.D., U. S. Navy, to Miss Irene Orndorff, of Washington, D. C., March 25.

John Maulfair Keichline, M.D., to Miss Martha Jane Thompson, both of Petersburg, Pa., March 24.

Harry A. Giltner, M.D., U. S. Navy, to Miss Virginia Bartlett Sullivan, of Washington, D. C., March 24.

J. Thomas Wright, M.D., to Mrs. Lillian Frontis, both of Winston-Salem, N. C., at Gastonia, N. C., February 26.

John Kyle Gordon, M.D., Chambersburg, Pa., to Miss Eleanor Wharton Wood of Bryn Mawr, Pa., March 20.

Deaths

William N. Burwell, M.D. Jefferson Medical College, Philadelphia, 1881; a member and councilor of the West Virginia State Medical Association; and a member of the Ohio Valley *and Little* Kanawha Medical Society; chairman of the health committee of the Parkersburg, W. Va., city council; at one time health officer of the city; for several terms a member of the Wood County Board of Health. and *during* the last term its president; died at his home in Parkersburg, March 23, from *influenza*, aged 50.

William Adams Olmstead, M.D. Howard University, Washington, D. C., 1883; a veteran of the Civil War, in which he attained the rank of brigadier general; for several years thereafter a disbursing officer in one of the bureaus of the War *Department, Washington; later physician at Indian agencies* in Colorado and Wyoming; who took holy orders in 1897, and afterward acted as chaplain at St. Elizabeth's Hospital, New York City; died March 9, from paralysis, aged 74.

William Ray, M.D. Missouri Medical College, St. Louis, 1868; *formerly a member of the American Medical* and Minnesota State medical associations; a surgeon in the Confederate *service during the Civil War; surgeon to the* Hope Mining Company; and chairman of the Board of Health of Philipsburg, Mont.; was thrown from his carriage in a collision with a railway crossing gate at Flint Station, March 17, and died a day later from his injuries, aged 66.

Alonzo Andrews, M.D. Jefferson Medical College, Philadelphia, 1894; of Martinsburg, W. Va.; a member of the American Medical *Association;* and *formerly* treasurer of the West Virginia State Medical Association; a member of the State Examining Board for Nurses. and surgeon in the West Virginia National Guard with the rank *of major;* died at a sanatorium in Asheville, N. C., March 19, from tubercular meningitis, aged 37.

Matthew Addison Taylor, M.D. Starling Medical College, Columbus, Ohio, 1849; a member of the State Medical Association of Texas and of the board of regents of the University of Texas; formerly physician in charge of the State School for the Blind; vice-president of the Austin and Northwestern Railroad; and president of the First National Bank of Austin; died at his home in that city, March 18, from heart disease, aged 82.

Wilbert Eugene Harriman, M.D. Jefferson Medical College, Philadelphia, 1895; professor of ophthalmology in the veterinary section and lecturer on pollution of waters in the sanitary engineering section of the Iowa State College, Ames, and physician to the institution; a member of the American Medical Association; died at the home of his father in Hampton, Iowa, from nephritis, March 17, aged 36.

Joseph Rutter Owens, M.D. *University* of Maryland, Baltimore, 1859; chief clerk of the claims division of the Treasury Department, Washington, from 1885 to 1890, and after that time treasurer of the Maryland Agricultural College, Hyattsville; for several years collector of taxes for Anne Arundel county; councilor and for three terms mayor of Hyattsville; died at his home, March 15, aged 70.

Ira Augustus Shimer, M.D. University of Pennsylvania, Philadelphia, 1897; a member of the American Medical Association; who entered the Army as lieutenant and assistant surgeon in 1898; was promoted to captain in the medical corps in 1903, and to major in 1908; died in Camp Overton, Mindanao, P. I., March 13, from acute septicemia, aged 38.

George Randolph Patton, M.D. Miami Medical College, Cincinnati, 1855; M.D. ad eundem, Medical College of Ohio, Cincinnati, 1858; for many years a member of the Wabasha county (Minn.) Medical Society; a prominent and esteemed practitioner of Minnesota; died at his home in Lake City, March 23, aged 74.

George A. Biddle, M.D. Bellevue Hospital Medical College, New York City, 1870; of Emporia, Kan.; a member of the Kansas Medical Society; and a member of the local board of U. S. Pension Examiners; a veteran of the Civil War; died in the Topeka State Hospital, March 13, from disease of the kidney, aged 63.

Roger Atkinson, M.D. Charity Hospital Medical College, New Orleans, 1876; once president of the Hays County (Texas) Medical Society; and for many years local surgeon for the Missouri, Kansas and Texas Railroad at San Marcos; died suddenly from heart disease at his home, March 16, aged 59.

William L. Pinkerton, M.D. Starling Medical College, Columbus, Ohio, 1871; a member of the American Medical Association and Columbus Academy of Medicine, and once president of the Central Ohio Medical Society; died at his home in Galloway, Ohio, Dec. 6, 1908, from capillary bronchitis, aged 68.

Frank J. Latshaw, M.D. Toledo (Ohio) Medical College, 1902; a member of the Ohio State Medical Association; a member of the staff of the Toledo State Hospital, and in charge of the tubercular colony of that institution; died from tuberculosis at a sanatorium in Monrovia, Cal., March 11, aged 31.

Charles Dean Hews, M.D. University of Michigan, Ann Arbor, 1870; surgeon to the Calumet Street Railway Company; a veteran of the Civil War; died at his home in Kensington, Chicago, March 24, from the effect of a gunshot wound of the head, believed to have been self-inflicted with suicidal intent, aged 62.

Cyril Fulton, M.D. Queen's University, Kingston, Ont., 1894; a member of the American Medical Association and a fellow of the Rochester (N. Y.) Academy of Medicine; local surgeon for the New York Central Railroad at Lyons; died in his apartments in that city, March 22, from pneumonia, aged 40.

Henry P. Dietrick, M.D. Medico-Chirurgical College of Philadelphia, 1903; a member of the Medical Society of the State of Pennsylvania and surgeon to the American Steel and Wire Company of Williamsburg, Pa.; died at a hospital in Philadelphia, February 5, from rheumatic endocarditis, aged 29.

Tappane Eustis Francis, M.D. Harvard Medical School, Boston, 1847; a member of the Massachusetts Medical Society; for fifty-five years a practitioner of Brookline; for several years a member of the local school committee, and a trustee of the public library; died at his home March 20, aged 85.

John Orlando White, M.D. University of Pennsylvania, Philadelphia, 1868; president of the Camden County (N. J.) Medical Society in 1870; and for several years visiting physician to the Camden City Dispensary; died suddenly at his home in Camden, March 23, from angina pectoris, aged 61.

Edwin G. Burlingame, M.D. Kentucky School of Medicine, Louisville, 1895; a member of the Indiana State Medical Association; contract surgeon U. S. Army during the Spanish-American War; died suddenly at his home in Oakland City, March 20, from acute nephritis, aged 41.

Albert J. Best, M.D. College of Physicians and Surgeons, Keokuk, 1876; Missouri Medical College, St. Louis, 1880; a member of the Kansas Medical Society; died at his home in Centralia, Kan., March 12, from erosion of the stomach, complicated by mastoid abscess, aged 61.

George Lorimer Baker, M.D. Harvard Medical School, Boston, 1902; of Dorchester, Boston; instructor in bacteriology at Harvard Medical School and engaged in tuberculosis research work; died at the East Bridgewater Sanatorium, March 19, from tuberculosis, aged 35.

Alfred Corbett Smith, M.D. Harvard Medical School, Boston, 1864; University of the Victoria College, Coburg, Ont., 1884; since 1865 at the head of the medical department of the government retreat for lepers, Tracadie, N. B.; died in Bathurst, N. B., March 12, aged 68.

Jerome Oliver Everett, M.D. Northwestern University, Chicago, 1881; a member of the Nebraska State Medical Association; secretary and treasurer of the Lincoln (Neb.) Sanitarium; died at his home in Lincoln, March 14, from valvular heart disease, aged 59.

Asa Peaslee Tenney, M.D. Harvard Medical College, Boston, 1859; for several years superintendent of the Osawatomie and Topeka state hospitals; local surgeon for the Missouri Pacific Railroad; died at his home in Kansas City, Kan., March 20, from pneumonia, aged 75.

Bradley Selleck McCabe, M.D. Albany (N. Y.) Medical College, 1850; a member of the New York state legislature in 1883; and a supervisor of Greene county for four terms; twice serving as chairman of the board; died March 16, at his home in Greenville, aged 84.

Thomas Sterling Barclay, M.D. Faculty of Physicians and Surgeons of Glasgow, Scotland, 1865; University of the Victoria College, Coburg, Ont., 1872; a member of the American Medical Association; died at his home in Detroit, March 14, from dropsy, aged 67.

Wilford L. Baker, M.D. University Medical College, Kansas City, 1903; a member of the American Medical Association; died at his home in Salisbury, Mo., January 9, from influenza, complicated with acute parenchymatous tonsillitis, aged 34.

John H. Davidson, M.D. Western Reserve University, Cleveland, 1870; a member of the Medical Society of the State of Pennsylvania; vice-president of the First National Bank of Perryopolis; died at his home in that city, March 18, aged 63.

Theodore Longshore Willetts, M.D. Jefferson Medical College, Philadelphia, 1874; a member of the American Medical Association and Harrisburg Academy of Medicine, and for 34 years a practitioner of Harrisburg; died March 25, aged 75.

Theodore Orson Gates, M.D. University of Wooster, Cleveland, 1867; for more than 30 years a practitioner of East Tawas, Mich.; died at his home in that place, February 15, from pyemia, following necrosis of the fibula, aged 65.

Abraham Forest, M.D. University of Louisville (Ky.), 1879, and Yandell medalist of his year; formerly physician for the western district of Louisville; died in his room in Pittsburg, March 17, from tuberculosis of the lungs, aged 52.

William Hyser, M.D. University of Buffalo (N. Y.) 1850; a veteran of the Civil War; a member of the Michigan State Medical Society and a pioneer practitioner of Kent county; died at his home in Plainfield, March 20, aged 82.

Albert Clark Winn, M.D. University of Missouri, Columbia, 1882; Bellevue Hospital Medical College, New York City, 1883; a member of the Medical Society of the State of California; died at his home in Tomales, March 13.

Solon Wilder Peters, M.D. Tufts College, Boston, 1906; of Colorado Springs, Colo.; a member of the American Medical Association; died at the home of his parents in Boston, from tuberculosis, March 17, aged 26.

William H. Hooper, M.D. Starling Medical College, Columbus, 1888; of Waverly, Ohio; a veteran of the Civil War; died at the home of his daughter in Bainbridge, Ohio, March 11, from heart disease, aged 69.

Adoniram Judson Dalby, for a short time a practitioner of North Carolina in the late sixties, and a Confederate veteran; died at his home in Oxford, N. C., in December, 1908, from cerebral hemorrhage, aged 66.

Thomas J. Beatty, M.D. Jefferson Medical College, Philadelphia, 1880; assistant chief medical inspector and chief diagnostician of the bureau of health of Philadelphia; died at his home in that city, March 22, from nephritis, aged 51.

Albert Reichard, M.D. Eclectic Medical Institute, Cincinnati, 1881; a member of the local board of U. S. Pension Examining Surgeons; died at his home in Paola, Kan., March 16, from heart disease, aged 57.

Marion Hudson Marmaduke (license, Mo., 1883); an eclectic practitioner of Vernon county, Mo., and a Confederate veteran; died at his home in Nevada, Sept. 1, 1908, from pneumonia, aged 73.

Freeman Evans Small, M.D. Medical School of Maine, Brunswick, 1879; of Portland; a member of the staff of the Maine General Hospital in that city, died in that institution, March 19, aged 54.

Adelbert Edmond Pettingill, M.D. Eclectic Medical Institute, Cincinnati, 1878; formerly treasurer of Superior, Wis.; died at his home in Gentry, Ark., February 27, from pneumonia, aged 67.

James Daniel Erwin, M.D. Medical College of the State of South Carolina, Charleston, 1850; a clergyman of the Christian church; died at his home in Erwinton, S. C., March 17, aged 80.

E. C. Cochran, M.D. Jefferson Medical College, Philadelphia, 1860; surgeon in the Confederate Service throughout the Civil War; died at his home in Tunnel Hill, Ga., February 24, aged 84.

George Justice Ewing, M. D. University of Pennsylvania, Philadelphia, 1901; formerly of North Wales, Pa.; died from tuberculosis at his home in Lunenburg, Mass., March 18, aged 33.

B. B. Andrews, M.D. University of Nashville, Tenn., 1859; a Confederate veteran; and for several years mayor of Russellville, Ky.; died suddenly March 16, at his home, from acute gastritis.

Henry Hale Pease, M.D. Syracuse (N. Y.) University, 1886; a practitioner of Syracuse and of Tucson, Ariz.; died in St. Joseph's Hospital, Syracuse, March 15, from paralysis, aged 48.

Fred Peaslee Taft, M.D. New York Homeopathic Medical College, New York City, 1892; died at his home in Longmont, Colo., from tuberculosis of the intestines, March 6, aged 37.

Simeon Orison Pilling, M.D. Boston (Mass.) University, 1891; for twelve years a practitioner of Newburyport, Mass.; died at his home in Hartford, Conn., March 17, aged 44.

J. Walton Pennock, M.D. Hahnemann Medical College, Chicago, 1880; a veteran of the Civil War; died at his home in Gladstone, Mich., March 12, from paralysis, aged 69.

Denison DeL. Carder, M.D. Philadelphia University of Medicine and Surgery, 1868; died at his home in Blyth, Ont., February 18, from fatty degeneration of the heart.

Morris J. Hawkins (license, Ohio, 1896); for 43 years a practitioner of Brunswick; died at his home in that place, from cancer of the stomach, March 11, aged 74.

Henry De Lacey Sherwood, M.D. College of Physicians and Surgeons, New York City, 1882; died at his home in Jersey City, N. J., March 16, from nephritis, aged 48.

Francis Wroatte Marshall, M.D. Tulane University, New Orleans, 1849; of New Orleans; died at the home of his daughter in Alexandria, La., Nov. 7, 1908, aged 81.

Samuel Taylor Emmons, for more than sixty years a practitioner of Indiana; died at the home of his son near Decker, Aug. 13, 1908, from heart disease, aged 87.

William F. Stouder, M.D. Physio-Medical College of Indiana, Indianapolis, 1889; died at his home in Newton, Iowa, Nov. 9, 1908, from heart disease, aged 58.

Thomas Dunbar, M.D. Jefferson Medical College, Philadelphia, 1888; formerly state quarantine physician; died at his home in Philadelphia, March 18, aged 50.

Amos York, M.D. Electic Medical Institute, Cincinnati, 1878; a veteran of the Civil War; died at his home in Strasburg, Ill., from lung disease, March 12.

William B. Hollis, M.D. Winchester (Va.) Medical College, 1853; of Cross Junction, Va.; died at the home of his sister in Strasburg, Va., March 20, aged 74.

James Barton Harvey, M.D. Penn Medical University, Philadelphia, 1867; died at his home in Atkinson, N. H., January 12, from heart disease, aged 64.

George Wilson Bell, M.D. College of Physicians and Surgeons, New York City, 1869; died at his home in Kingston Station, N. S., recently, aged 66.

Daniel T. Starkey, M.D. Hahnemann Medical College, Philadelphia, 1863; died at his home in Newtonville, Mass., March 3, from arteriosclerosis, aged 83.

Oscar North Tindall, M.D. University of Michigan, Ann Arbor, 1869; a veteran of the Civil War; died at his home in Toledo, March 22, aged 66.

Mortimer Lucas Dixon, M.D. Queens University, Kingston, Ont., 1886; died at his home in Frankville, Ont., March 17, from peritonitis, aged 45.

James Harvey Brown, M.D. University of Louisville (Ky.) 1856; died at his home in Bardstown, Ky., Sept. 2, 1908, from diabetes, aged 76.

James Aylen, M.D. McGill University, Montreal, 1863; died at his home in Aylmer, Que., from epithelioma of the throat, March 6, aged 70.

Charles Langdon Kingsbury, M.D. New York Homeopathic Medical College, 1874; of Boston; died in San Diego, Cal., March 14.

David S. Byers (license, Iowa, 1886); of New Hampton, Iowa; died in the Independence State Hospital, March 17, aged 76.

Society Proceedings

COMING MEETINGS

American Medical Association, Atlantic City, June 8-11.

Alabama, Medical Assn. of Sta[illegible] [illegible]pril 20-23.
Amer. Assn. Pathologists and [illegible] April 9-10.
California, Medical Soc. of Sta[illegible] 20.
Florida Medical Association, Pensacola, April 7-9.
Georgia, Medical Association of, Macon, April 21.
Mississippi State Medical Association, Jackson, April 13.
South Carolina Medical Association, Summerville, April 21.
Tennessee State Medical Association, Nashville, April 13-15.
Tropical Medicine, American Society of, Washington, April 10.

AMERICAN ACADEMY OF MEDICINE

Second Mid-Year Meeting, Held in Chicago, March 25, 1909

Dr. Charles S. Sheldon, Madison, Wis., First Vice-President, in the Chair

Entrance Requirements and the Didactic and Laboratory Portions of the Medical Course

Dr. N. P. Colwell, secretary of the Council on Medical Education of the American Medical Association, Chicago: Fourteen medical colleges are requiring the equivalent of one or more years in a college of liberal arts. Thirty-eight other colleges have voted to require additional work for admission by 1910, and the large majority of them mean what they say. Many have already outlined in their announcements the proposed courses of preliminary college work. The growing demand for better trained medical students is most encouraging, and all organizations interested in these higher standards should work hand in hand to help the movement along. The majority of the schools have specified that certain subjects must be included in the one or more years of college work. The subjects specifically mentioned were physics, chemistry, biology and modern languages. All are agreed regarding the requirement of physics, chemistry and biology (botany or zoology); six require French or German, while five require both; three specify Latin as a requirement, one specifies English, one trigonometry, and one recommends psychology. From each of the colleges named a complete statement has been received showing the hours of didactic and laboratory work devoted to each of the fundamental medical branches. This report has included only the fourteen medical colleges of the United States which actually required one or more years of liberal arts college work for admission last year, in addition to a four-year high school education. It is interesting to note that the list numbered only 6 in 1906, 3 being added in 1907, and 5 being added in 1908. In the future, the increase is to be even more rapid. Next year will see an increase of at least 5, these including medical departments of Yale, Kansas, Pennsylvania, Michigan and St. Louis universities. The year following will see the list increased by at least 20 or 25 colleges.

There is one danger connected with the advance in requirements, and that is, that the inferior colleges will benefit by this effort and continue to turn out even larger numbers of ill-prepared physicians. This behooves the various organizations interested in the advance movement to do all they can to support the better class of schools. It is encouraging to note that state examining boards are beginning to do their part in this support of the high standard schools. As has been shown in previous reports of the Council on Medical Education, six state boards are requiring one or two years of preliminary college education in addition to the four-year high school course. These are Minnesota and North Dakota, each two years, and Connecticut, South Dakota, Colorado and Kansas, each one year. It is to be hoped that other state examining boards will take a similar stand and thus support this movement for higher standards which means so much to the future medical education in this country.

Can the Third and Fourth Years of the Literary College Give Any of the Medical Course?

Dr. Walter McNab Miller, Columbia, Mo.: The tendency is to lengthen the course in medicine, or what amounts to the same, to increase the requirements for admission.

When one considers the average age at which the physician dies and the long interval required for the establishment of a practice, there remains but little time for productive, remunerative work. To extend this course another year would certainly require more time and expense than the remuneration of country practice and the conditions of life prevailing there would justify or could reward. Such lengthening and intensification of the course in medicine would carry a good thing too far, and the question arises: How is this difficulty to be avoided without sacrifice to professional training, to the productiveness of the individual, or to the welfare of the sparsely settled rural communities or overcrowded quarters of the cities? Close our eyes to these facts as we may, it is from these populous districts that the average physician who constitutes the rank and file of the profession will draw his patronage. To the last question, does not the custom prevailing in Great Britain and her colonies suggest an answer?

Let the technical course which follows that of the fourth year premedical course be extended from two years to four years, making the total course equivalent to an eight-year combined course. On completion of the first two years of this combined course let the degree of M.B. be conferred, and with it the privilege of practicing after passing the examination set by a state or national board of examiners. Let the degree of M.D. be conferred on completion of the last two of the four years of technical instruction and let go with that the privilege of practicing a specialty or of becoming an independent teacher of the sciences that are fundamental to medicine, or are applied in the art of its practice. The consideration of this plan by members of the academy would doubtless lead to fruitful results.

Taking the various restrictions and suggestions into consideration, I believe that not only can the third and fourth years of the college give some subjects of the medical course, but they can give all the subjects that pertain fundamentally to medicine.

Medical Elective Work in the Literary College

DR. JOHN L. HEFFRON, Syracuse, N. Y.: In examining the replies to a circular letter which I sent to representatives of colleges and by referring to the courses as outlined in the various catalogues, I am impressed with the fact that the courses do not fully correspond with those carried out in medical colleges. More attention is paid to cytology and to the histology of tissues and considerably less to the microscopic anatomy of organs. In embryology, much more attention is given to technic and to laboratory work with the lower forms of life, and less to mammalian development and fetal membranes. However, the difference is so slight that it would be easy to modify these courses to correspond with the needs of the medical student. In the main, it is evident that the work in the better colleges in histology and embryology is as good as in the better schools of medicine, but that gross anatomy is not adequate to the demands of a college of medicine and can not be without human dissection. Students of colleges who give the work of the first year of the medical course in full should be made eligible to enter the second year of the course in a college of medicine. But this provision should be safeguarded by regulations that would insure the accomplishment of that year's work under conditions of equipment in teachers and laboratories fully equal to those in colleges of medicine. The proper place for teaching all medical branches is the well-organized medical college with the hospital. The best teachers of it are men who have had medical training; the best learners are those definitely consecrated to their lifework as medical students. This subject can not be better summarized than in the conclusions of the Council on Medical Education of the American Medical Association as follows:

1. The first two years of the medical course should be taught with the same degree of thoroughness as they are being taught in our best class of medical schools to-day. This is the chief consideration.

2. If universities have sufficient endowment to provide the laboratories, the extensive and special laboratory equipment, and the five or more salaried expert instructors in the laboratory branches. these instructors to be largely, if not entirely, men who have had a complete medical training, then, and then only, should they undertake to teach the branches included in the first two years of the medical course.

3. If the university has the funds necessary to provide for the work in the manner outlined above, then it should secure a special charter or some other legal authority to teach medicine, since several states persistently refuse to recognize any work toward the M.D. degree which has not been taught in a legally chartered medical school.

4. If the university has thus provided for the subjects of the first two years in medicine, and has arranged to teach them with the same high degree of excellence as is done in our high grade university medical schools, then the university would be fully justified in allowing the first two medical courses to be elected as the last two courses for the B.S. degree, if it chose to do so.

5. Such action would not lower the value of the baccalaureate degree, but would be an acknowledgment of the thoroughly scientific character of the subjects included in the first two years of the medical course, which formerly were not sufficiently developed nor taught with sufficient thoroughness to warrant their being thus accepted.

To these views as to the conditions under which the scientific work of the first and second years of the medical course must be given, I give full and unhesitating approval. But I believe it is the function of the fully developed college to give its students an opportunity to pursue every branch of human knowledge.

Discussion on Preliminary Education

DR. WINFIELD S. HALL, Chicago: I thoroughly agree with Dr. Miller that it would be desirable for the development of medical education in America to continue along the lines already blocked out by the various forces that are stimulating medical education until we finally come to the ideal set forth by him. I believe, however, that it will be a long time before we reach that ideal. I also agree that literary colleges should not attempt to give the first two years in medicine until they are properly and fully equipped and able to man the various laboratories required to give these courses in the first two years. All the colleges with which I am acquainted have introduced in the last two decades well-equipped laboratories for teaching chemistry, biology and physics. The medical school should require of a man who presents himself for admission evidence of having devoted one year to college chemistry, one year to college physics, and one year to college biology. He should also have a reading knowledge of German and French. In the second class, he should have organic chemistry, physiologic chemistry. In the biologic department of these institutions a moderate addition to the requirements or equipment would enable them to give histology, embryology, mammalian anatomy and human osteology in an acceptable way. Such a course should cover physiology of muscles and nerve tissue. The special physiology of nutrition, including the physiology of digestion, metabolism, and animal heat, respiration and circulation, physiology of the central nervous system, etc., are given in the second year in the medical course. These can be taught in a literary college with a moderate addition to its equipment in materials and men. Strictly medical subjects, as human anatomy, special physiology, bacteriology, pharmacology, pathology, principles of hygiene and sanitary science, can only be given in an institution having elaborate and extensive equipment in both laboratories and men. Such courses should only be given by medical men, and I do not see how literary and scientific colleges can feel justified in extending their courses to cover those branches. I can see how the larger universities can easily take the step that Wisconsin or the University of Chicago has taken. It is a legitimate, natural and logical growth, but whether Wisconsin will eventually affiliate with the clinical school is a problem for the future.

PROF. JOHN H. T. MAIN, Grinnell, Iowa: If a literary college gives a good course in histology or embryology, and does it in a way to meet the requirements of the case, there is no reason why it should not receive credit in any medical college for that work. But much depends on the character of the institution, on the teachers and their training, and on the laboratory equipment. I believe, however, that a first-class literary college can teach any of the pure sciences required in medicine.

PROF. H. B. DENSMORE, Beloit, Wis.: The general policy of Beloit with reference to medical education is about what it is with regard to all special branches of professional work, namely, we feel that our college subserves its best function in giving what is usually called a general education which furnishes a good foundation for all professions.

Mr. C. A. Blanchard, President of Wheaton College: Twenty-five years ago about the only thing we heard in educational conventions was the necessity of increasing the requirements for admission to college. We were told they were shamefully low and ought to be raised. They were pushed up from two years to three years, and then four years. Now, in the Philadelphia Central High School there are six years of study. I speak of this six years' course to show the general trend of matters pertaining to education. Our preparatory courses have been considered too short and must be made longer. The courses in medicine, in law, in theology, have been lengthened, and now the proposition is to exact greater preliminary preparation and requirements for entrance to medical colleges, and I hope you will all exert your efforts to bring this about, for we know the preliminary requirements of men entering the legal and medical professions in the past were not what we expect them to be to-day. The standard, therefore, should be raised.

Dr. John M. Dodson, Chicago: Only five years ago the proposition was made to make a partial increase in the preliminary requirements and require two years of college work. What has been the result? Dr. Colwell, Secretary of the Council on Medical Education, states that thirty medical schools have announced their intention of requiring in the immediate future two years of college work, and that thirty more will require at least one year of college work for admission to medical colleges. This means that this is going to be universal in the United States within the next decade.

Prof. W. F. Mercer, Ohio: Not a single student of mine who enters a medical college has to take embryology or histology over. If we do our work satisfactorily in teaching these branches, we like to have it recognized by medical colleges. According to the laws of Ohio, a man must spend four years in a medical college, no matter how much he knows, before he can begin to practice. That is absurd, but it is the legal side of the matter; it is not the matter of how much one knows. I think we are getting away from that.

Prof. Arthur W. Meyer, California: No one can question the value of a baccalaureate degree, yet at the same time I heartily sympathize with those who claim that we can not require this degree as an entrance requirement to medical schools. Most college graduates who enter on the medical course do not, after graduating from medical schools, practice medicine in the country. They stay in the big cities and there is great need on the part of the medical profession for a class of men well-trained to practice medicine in the country. I think the position taken by Professor Main is correct. I believe courses in general pathology and kindred subjects can be given just as well by a literary college or university as by the medical school, provided the former meets the requirements and has the proper equipment.

(To be continued)

NEW YORK ACADEMY OF MEDICINE

SECTION ON ORTHOPEDIC SURGERY

Regular Meeting, held March 18, 1909

The President, Dr. John A. Wyeth, in the Chair

SYMPOSIUM, WHAT SHALL WE DO WITH OUR CRIPPLES?

Widener Memorial Industrial School for Crippled Children, Philadelphia

Dr. De Forest Willard, Philadelphia, surgeon-in-chief of the Widener Memorial Industrial School: I am glad that the New York Academy of Medicine has taken up this question. Rosenfeld estimates that one-sixth of the inhabitants of Germany are more or less crippled, and that the economic gain to the empire if this great company could be made self-sustaining, would be $30,000,000 annually. Instead of this, each is an actual cost to the State or to his friends of several hundred dollars yearly. It would be of great advantage if this society could induce the Commissioner of Census next year (1910), to secure statistics as to the number of cripples in this country. About forty years ago I became deeply interested in the problem of assisting crippled and deformed children; at that time Sayre was making his stubborn fight for recognition of the fact that these cases were not hopeless. I determined, if possible: 1. To secure a hospital where these children could either be cured or greatly benefited by surgical, mechanical and hygienic measures. 2. To secure a fund for the supplying of these poor patients with the braces and apparatus, which were so essential to their locomotion. 3. To educate and train each crippled child along lines best suited to its physical deformities, its mental condition and its power for self-support. 4. To endeavor to educate medical students in the diagnosis and treatment of these cases and to open the eyes of surgeons to the fact that while they were helpless, they were not hopeless; that it was a sin and a crime to pass carelessly over these afflicted and handicapped individuals with the condition undiagnosed and the case dismissed, simply because time, care and patience were required for their relief. The hospital has been secured, and a sum has been raised for supplying patients with apparatus. About ten years ago I presented to Mr. P. A. B. Widener, a millionaire philanthropist of Philadelphia, the needs of this class, and showed him a field largely unoccupied by any institution. As a result, there stands to-day in Philadelphia, a school for the mental education and manual training of these cripples, admitting only children under 10 years of age. Mr. Widener has purchased thirty acres of ground in the outskirts of the city and within easy reach from the center. He has already spent $1,000,000, and has endowed the institution with $3,000,000.

The institution is to be devoted to crippled and deformed minors, without distinction as to creed, nationality or sex; to supplement the work of hospitals; to strengthen and renew the weak ones, and then to educate them into habits of industry, order, cleanliness, self-respect and self-reliance; to apply such mental, moral and religious training as shall render them true, honorable, useful and self-sustaining members of the community. Feeble-minded children are not eligible; the children must be permanent cripples, but improvable. In the manual training department, the choice of a trade is determined in part by the desire and inclination of the pupil himself, in part by the mental and physical abilities he has manifested, and in part by the financial remuneration to be secured. It is the object to select for each pupil that trade which will develop and employ his greatest earning capacity, provided it be not contrary to his taste and abilities. Classes have been organized in sloyd work, reed and raphia, bead work, caning and chair repair in the elemental manual department, but the advanced departments are yet to be established, since the school has been in operation less than three years, and since the oldest pupils are but fourteen years of age. Trades may be selected from the following: Farming, gardening, floriculture, care of poultry and stock, dairying, carpentry and woodwork, use and care of machines and engines, operation of elevators, leather work and making of shoes, braces and crutches, tailoring, dressmaking, millinery, printing, cooking, housekeeping and laundering. Wages will be paid to advanced students, who will then be charged for board. A saving fund has been established to cultivate habits of thrift and economy. Students will be graduated at the age of 21, when it is believed they shall have become wholly or partly capable of self-maintenance. They may, however, remain longer. The children are taught the use of good language and polite manners, respect for elders and obedience to those in authority, orderliness of conduct and care of property, and a spirit of unselfishness and of helpfulness toward each other. The principles of the Christian religion are taught, apart from any sectarianism. Every measure is employed to make the children happy, and to afford them pleasure and recreation.

The first patient was admitted to the school in March, 1906; to-day there are 91 children, ranging from 4 to 14 years of age, 61 boys and 30 girls. At present there are accommodations for not more than 120. Already such progress can be observed in the physical, mental and moral development of the children of the school that the founder and those in charge are encouraged to continue and advance the work, believing that the ultimate results will fully justify the great labor and the great cost of the undertaking.

Opportunities for Employment of Cripples

W. FRANK PERSONS, Superintendent of the Charity Organization Society: There is no provision in New York City for the industrial training of crippled adults. Special training for crippled children has not been provided until recently and is now woefully inadequate both in kind and amount. There has been little wisely directed effort to provide suitable employment and thus to save to self-support and to self-respect those who are obviously unfitted to engage, on equal terms, in the struggle for existence. The result has been great waste of character and of charitable funds. For ages public begging has been condoned as a recognized means of livelihood for cripples. The relative ease of this means of support constitutes an almost irresistible temptation to mendicancy for the cripple who had not special fitness for some occupation. During one period of fifteen months there were 1,863 arrests of confirmed mendicants by the mendicancy officers under the direction of the Charity Organization Society. Of these men and women, 701 were physically defective, and 447, or 24 per cent. of the entire number, were crippled. This, of course, is vastly higher than the percentage of cripples in the population. These figures are noteworthy as illustrating the result of the lack of industrial opportunity which must be encountered by each crippled person who is equipped with nothing but limited physical strength and diminished capacity. The mendicant cripples constitute a small proportion of the cripples who are not self-supporting and yet a smaller proportion of the entire number of cripples in the community. Charity is caring for thousands of cripples who could have been rendered wholly or partially self-supporting by special attention to their needs and latent abilities. It is not easy to place in employment a cripple who is without training related to his disability. Special and continuous study is required to discover a sufficient variety of opportunities for the employment of persons suffering every variety of partial disability and representing every degree of diminished capacity. But more necessary still is the individual and personal consideration which each person so disabled must receive in order to determine precisely his capacity for work and the surroundings in which he must be placed to safeguard his health and to enable him most fully to realize his possibilities.

During the fiscal year ending Sept. 30, 1908, applications from 264 cripples were registered in the special employment bureau for the handicapped. Of this number, 57 had been disabled by accident or injury to health due to the nature of their previous employment, the remainder, or 207, had become incapacitated through causes not connected with their previous employment. During the twelve months to which these statistics relate the whole number of applications registered in this bureau was 1,217. Of these applicants 477 were placed in steady employment at wages averaging $6.98 a week; temporary work was found for 234 others making a total of 711 handicapped persons who were helped during a year of great industrial depression. The experience gained in the special employment bureau thus far has made evident the imperative need for adequate and suitable specialized education and industrial training for crippled children who must start life under the heavy handicap of ill health and physical disability. The present opportunity for appropriate education for crippled children in New York City is admittedly insufficient. The best available census shows that there are 2,700 cripples of school age, and this is known to be incomplete. Some estimates place the number as high as 7,000. In all the schools and classes for such children there are registered 932 pupils. This indicates that there are at least 1,500 children in New York who are unable because of physical disabilities to attend regular classes in the public schools and who are without proper educational advantages.

The Care of the Injured and Crippled in Germany

DR. CHARLES H. JAEGER: During the past twenty years 1,500,000,000 marks, or $750,000,000 have been paid to injured workmen in Germany. This is the result of compulsory insurance laws passed in 1883. Similar laws have been adopted since in France and Great Britain. The insurance against sickness provides the workman in case of sickness with funds and medical attendance for twenty-six weeks, of which the employé pays two-thirds and the employer one-third of the premium. The rules are similar regulating accident, invalidism, old age pensions, provision for dependents in case of death, and are carefully graded in reference to degree of risk, occupation, age and other data. In any case of disability to work, the workman receives immediate attention and care, by the most efficient specialists, either by medicines or operation. In the former case he is sent during convalescence to such health resorts, as his condition requires. In the latter case he is thoroughly restored to his former efficiency by the aid of mechanotherapy. This system of therapeutics consisting of machines, scientifically constructed and capable of such delicate adjustment that the most tender joint or weakened muscle can be placed in the machines to be moved in exact psychologic line. The purpose of this is to strengthen the muscles, to loosen up the joints which have become stiffened by long wearing of splints, a condition accompanying all fractures of the bone. The importance of this after-treatment after illness is obvious when an accident patient has become crippled and unable to carry on his former occupation. Stations for this purpose are distributed all over Germany, 350,000 individuals receiving the benefit of mechanotherapy yearly. In New York there are two, one in the German Hospital and one at the Vanderbilt Clinic.

The magnitude and beneficence of this compulsory insurance can be estimated when one knows that from 11,000,000 to 12,000,000 are insured against sickness, 18,000,000 against accident, and 14,000,000 against old age. In case of accident, the compensation must be given even though there be negligence on the workman's part, unless the accident was caused purposely. The compensation begins 13 weeks after the accident, the sick fund or the employer being responsible meanwhile. The manner of receiving the compensation is simple. There is no lawsuit. There are no legal expenses or delay whatsoever. The employer's accident insurance corporation pays out the money through the nearest postoffice. The economy of this system is apparent, when one learns that the cost of administration in the compulsory insurance is only 13 per cent., while in the competitive companies in this country 68 per cent. of the premiums are eaten up in expenses and profits. When we take into consideration that the number killed in the army of labor is 500,000, which is 50 per cent. more than all killed in the late war between Japan and Russia, it will not be difficult to imagine how many are disabled by accident. It immediately assumes a sociologic aspect when we consider a crippled person unable to work, as most susceptible to be dragged down with his family to pauperism and criminality. The necessity can not be emphasized sufficiently of adopting such measures in our country of meeting the workman half way during the time of disability, and of establishing the most exemplary opportunities for his rehabilitation. Every right-thinking individual will agree that it is unjust that the workman should bear the brunt unaided, in the face of a hazardous career. Let us form as soon as possible a national association for the study and promotion of the compulsory insurance system in this country.

Discussion on Employment for Cripples

MR. SHERMAN, formerly Commissioner of Labor: All who have studied this subject agree with the opinions expressed and the conclusions drawn. The number of accidents reported in factories for 1907 was 19,000. Over 4,000 persons were either permanently injured or so seriously injured as to be permanently crippled. In about 90 per cent of all accidents occurring in factories the victims were men; this means over 4,000 efficient industrious people thrown suddenly out of work. The law makes no provision for their care or support, and they are turned over to charity. The law in this state is the old common law in England. It provides that the employer shall provide a proper place for the employé to work in, but the employé assumes all ordinary risks and the employer is only liable when accidents occur through negligence on his part. Many accidents occur which are not the direct result of the negligence of either party. Frequently the accident is due to the negligence of neither the employer nor the one injured, but to some other party. The question frequently arises as to what negligence means and in this case the decision of the jury rests largely on the degree to which their sympathies are involved and not on facts. The courts are filled with these cases and even if a decision is rendered in favor of the employé the litigation usually covers a number of years and the employé gets only about 20 per cent. of the amount of damages, the remainder going to pay the legal machinery. The system is unjust. The industries of Europe have practically abandoned all such laws, the fundamental principle being that the industry must pay the costs of the injured. We might have an adaptation of the law as it exists in Europe. Then all classes of cripples would be provided for and that by money that was not wasted on litigation.

Dr. Virgil P. Gibney: In New York City, hospitals and institutions for crippled children have grown up and are well supported, without being dependent on the city. I have seen former inmates of the Hospital for the Ruptured and Crippled begging on the street corners. They seem to tire of the hospital life and make a better living begging. The best way to prepare the cripples for usefulness in life is to endeavor to secure for them proper and useful limbs. That is what the Hospital for the Ruptured and Crippled does. The patients are kept long enough to give them the best possible use of their limbs. There are schools in connection with the hospital and it may be a surprise to many to know that the physicians have to get around early in the morning to get through with the hospital work so that the patients can go to school at 9 o'clock. There are singing classes as well as a good public school; and an industrial branch is also maintained. Many of the patients who were in the institution in the 70's and 80's are now useful members of society.

Dr. Theodore C. Janeway: Here, as in all philanthropic work to-day, the object should be prevention; the curative measures should be a secondary consideration. Crippled conditions arise in two different ways, as the result of accident and as the result of disease. Preventive measures applicable to the one class are not applicable to the other. In the case of accident prompt and efficient surgical treatment would often do away with a large amount of disability; this would not always apply to those crippled as a result of disease, but much could be done by prompt action in the treatment of tuberculous bone and joint diseases. The borderline cases, individuals only partially disabled, especially need looking after in order that they do not become public or private charges. Industrial training requires a primary basis of scientific research into the industrial possibilities of cripples of particular types. The real field of charity in this work is the extension of this field of research. It should be pointed out to those persons who are responsible for the education of crippled children that if training is to be of value to the individual or the community certain lines must be taken up in which opportunities are numerous in order to assure these unfortunates of self-support when they leave the institution.

Miss Perry, Boston, told of the school for cripples which was started fifteen years ago and which during the past five years had made more progress than during the previous ten years. At present there were 75 children in the wards and the mental work corresponded to that in the public schools. There were thirty pupils in the industrial workshops. Instruction was given in the wards and the children were receiving manual training. Some worked two hours a day in the printing office, some at braiding, sewing, caning chairs, making boxes, etc.

Dr. Thorndike, Boston: The problem of how the cripple can support himself is still unsolved. In the institution with which I am connected they are taught cobbling, boating and various other trades but it still remains to be seen whether or not they will be successful in their efforts. Just outside of Boston there is another school for cripples which is under state government. There are now 100 children there, many of whom are tuberculous. Before going to bed their clothing is warmed and then their shacks are thrown wide open; the schoolrooms are wide open all day and the improvement under this régime is phenomenal. They are taught outdoor employments, farming, gardening, etc.

Dr. Wallace, New York: Few realize how many crippled children there are in New York City. The annual report of the Hospital for the Ruptured and Crippled states that 6,082 new patients were treated in the outdoor department in one year. There are at least 7,000 crippled children in New York City. Last year 571 children were discharged from the Hospital for the Ruptured and Crippled and what became of them is not known. There are 564 crippled children in the various schools of the city. Among the things to be considered in the care of these children are transportation, food, manual training and mental training.

PHILADELPHIA NEUROLOGICAL SOCIETY

Regular Meeting, held Feb. 26, 1909

The President, Dr. T. H. Weisenburg, in the Chair

Chorea of Emotion

Dr. S. Weir Mitchell: The affection which I call emotional chorea is perhaps more interesting than important. The terms emotional temporary ataxia would equally describe it. The patient whose case I report is a busy man of 45, whose general physical condition is excellent. He has always been healthy but inclined to be nervous. He worked hard for many years without holidays, with few pleasures, but no excess of alcohol or tobacco. His memory was so good that in his business of real estate transactions and building, he, for some years, trusted alone to his memory and kept no books. This seems to have involved a continual and unnecessary mental strain. His muscular power is good; he has no ataxia, sensation is perfect, knee-jerks are absent until reinforced, which has been the case with him at least for twenty years. Gait, station and eyes are good. His writing is distinct, clear and without tremor, while he is untroubled, but for the last twelve years he finds himself unable to write when people are overlooking him, as in a hotel register, for example: the first letters of his name are correctly penned, then there is abruptness and irregularity of the signature and his hand flies off, at times across the page. On the other occasions the effort to sign his name results in wild immediate movements of an ataxic character and in a signature which is practically unreadable. At times he is compelled to leave the dinner table since, when with strangers, it is almost impossible for him to feed himself, as he then becomes almost helpless, requiring both hands to get a cup of coffee or glass of water to his mouth. When alone this rarely occurs unless something strikingly reminds him of his failure. Under extreme excitement he is quite steady, and a single glass of whisky or a glass or two of wine puts an end to his choreic difficulty. A careful examination of the psychic conditions brings out certain interesting conditions. He confesses that at times he has a feeling of fear that if any one comes on him he would not be able to defend himself under attack, or be competent under circumstances of peculiar difficulty, but he doesn't suggest or imagine any special difficulty. Also, he has that other form of nervousness which we occasionally see and experience when sudden noises affect him more than they should do. Strenuous efforts to overcome his choreic trouble usually end in making him "nervous." I would here call attention to the nervousness of soldiers about to go into battle and in those who have undergone protracted physical suffering; also to the general nervousness of some people in which self-consciousness plays an important part and which brings about difficulties in regard to habitual acts done under attention. It is but an illustration of what is seen in old age when a man aware of his tremulous hand becomes disturbed and shows increase of tremor or something of the more ataxic condition delineated. I have known persons whom no one would have described as nervous, who always disliked to be under observation while signing their name. A man, twice mayor of Philadelphia, who had to write hundreds of signatures, sedulously avoided having any one near while writing, lest the effect on distinctness of his sign manual would be such that some one would say: "He is failing." A glass or two of wine entirely abolished it and it always does so. Failing powers bring self-consciousness so that what has been almost automatic becomes a distinctly impaired act by being the subject of attentive volition. A short time ago four out of six men, two of them scientific, confessed that they did not like to be watched while making a signature. Recently a physician who has this infirmity told me that, if in a letter he had to express himself as being annoyed, his handwriting at once became so ataxic that he had to stop and determine to wait, and then he would take up the pen again quietly.

Discussion

Dr. F. X. Dercum: Dr. Mitchell's patient had been subjected to considerable strain of memory and possibly this was a factor in the diminished emotional inhibition, or emotional control. Of course, we can only speculate in regard to affections of this kind; we have nothing tangible from which to judge. When I first began to practice medicine I was annoyed very much if any one watched me write a prescription; I wrote much more illegibly than I otherwise would have done. I think that if we analyze ourselves we will be able to detect peculiarities that otherwise we would not have noticed.

Dr. A. R. Allen: Possibly the most illegible writing that can be found anywhere is the usual hotel directory. I have seen a man of 33 or 34 who is of a very phlegmatic temperament, but who can not perform the act of micturition in public. I have known him to suffer from serious retention when it was impossible for him to get away from a crowd.

Dr. W. G. Spiller: We are apt to overlook little things and I am certain that I as well as others have seen many times the condition Dr. Mitchell has described as chorea of emotion, but never recognized it as such.

Dr. J. Hendrie Lloyd: Is the condition spoken of by Dr. Mitchell allied to the condition of psychasthenia, a condition of self-consciousness, the inability to control excitement? Any little nervous tension may then result in an inhibition.

Dr. Horace Carncross: I have a patient, a young woman, who plays the piano perfectly when alone, but as soon as she is conscious of strangers in the room she can not play. If she is to play before others she is conscious beforehand that she is going to forget the pieces that she is thoroughly familiar with. When alone or in the presence of her family, to whom she is used, she does not forget her music.

Dr. S. Weir Mitchell: It is well-known that the knee-jerk can be increased by causing emotion. There is but little doubt that it is the overflow from whatever part of the brain is excited emotionally and such overflow may be responsible for these irregular movements, just as they are in the activities of the knee-jerks.

The Relation of Tabes and Aortic Aneurism

Dr. Paul H. Bikle: The frequent occurrence of tabes dorsalis and aortic aneurism in the same patient suggests the possibility of tabes being in some way a causative factor in aneurism. Syphilis is one of the chief causes of arteriosclerosis and also of aneurism. The Wassermann test has proved the pre-existence of syphilis in cases of aneurism and aneurism has at times proved a syphilitic affection. Syphilis is the chief etiologic factor of tabes. Blood pressure is raised and the pulse is accelerated in crises and lightning pains of tabes, but not to an extent sufficient to aid to any appreciable extent in the formation of aneurisms. The conclusion is that the occurrence of the two conditions in the same patient is a coincidence of cause, both being dependent on syphilis, in practically every instance.

Other Papers

The following cases were presented and papers read: "Cardiac Crises in Tabes," by Dr. S. D. Ludlum; "A Possible Case of Landry's Paralysis," by Dr. John H. W. Rhein; "A Case of Cerebellar Meningocele," by Dr. T. H. Weisenburg: (A) "Meralgia Paresthetica Recurring with Repeated Pregnancies," (B) "Myopathy of Unusual Distribution," by Dr. George E. Price; "Tuberculoma of the Brain," by Dr. M. D. Bloomfield.

Book Notices

Vaccine Therapy and the Oponsic Method of Treatment. By R. W. Allen, M.D., B.S., Late Pathologist to Royal Eye Hospital. Second Edition. Cloth. Pp. 242, with illustrations. Price, $2.00. Philadelphia: P. Blakiston's Son & Co., 1908.

This volume incorporates a concise exposition of the theory and principles of bacterial vaccination and of Wright's method of estimating the opsonic value of serums. Chapters are devoted to the "Determination of the Opsonic Index," "Preparation of the Vaccine," "The Opsonic Index in Health and Disease; Its Value in Diagnosis, Prognosis and Treatment," followed by a series of chapters on certain of the infectious diseases.

The whole work suffers greatly in authority from the consideration which Dr. Allen gives to the *Bacillus paralyticans* as the cause of general paralysis of the insane, and to the *Micrococcus neoformans* as a cause of malignant tumors. In regard to the latter the humor of the situation is shown by the following paragraph (p. 209): "Successful treatment by means of a vaccine was recorded by Wright in a case of cancer of the larynx. Death, however, ensued in about six months, and was found postmortem to be due to cancer."

The work is of value in so far as it gives a fairly satisfactory summary of the main facts of the subject.

That Dr. Allen is an enthusiast on the subject of bacterial vaccination and opsonins, is shown by the closing words of the introduction: "It would appear that to the genesis of a new, of a scientific, system of medicine the impulse has now been given. The medicine of the future is the medicine of vaccines and sera. The empiricism of the past will give way to methods based on scientific knowledge, and the public will no longer look on medicine with a sceptical eye, and dose themselves with ineffective nostrums. The surgeon will triumph where he now fails, and, armed with additional power, he will not fear the inroads of bacterial invasion."

This is very good rhetorically, and may it all come to pass! Dr. Allen, of course, is speaking only of infectious diseases, a point which, in his enthusiasm, he neglected to specify.

Ergebnisse der Inneren Medizin und Kinderheilkunde. Redigiert von Th. Brugsch, L. Langstein, Erich Meyer and A. Schittenhelm. Vol. II. Paper. Pp. 708, with illustrations. Price, 24 marks. Berlin: Verlag von Julius Springer, 1908.

The second volume of this new publication amply fulfills the promises both of the first volume and of the general plan of its editors. It will be recalled that the purpose of this work is to give in two large volumes a year exhaustive treatises on various subjects in internal medicine and pediatrics, by men whose authority is recognized in the particular subjects they discuss. This volume contains papers by Mayer, Göppert, Falta, Edens, Méry, Lewin, Rudinger, Uffenheimer, Müller, Gerhardt, Frankenhaüser, Orgler, Bloch, O. Heubner, and Reyher.

The scope of these papers can be seen, for example, in that of Göppert, who contributes 44 pages on purulent urinary infections in childhood, citing 104 of his own cases; that of Uffenheimer on the physiology of the gastrointestinal tract of the nursing and older child (96 pages), with a literary index covering 595 publications; that of Falta on the therapy of diabetes mellitus (70 pages); that of Gerhardt on irregularities of the heart-beat (24 pages), etc. The editorial staff, composed of Kraus, Minkowskifi Fr. Muller, Sahli, A. Czerny, O. Heubner, is alone a guarantee of the nature of this work, which represents the highest type of German medical scholarship.

AMERICAN NATIONAL RED CROSS TEXT-BOOK ON FIRST AID AND RELIEF COLUMNS By Major Charles Lynch, Medical Corps, United States Army. Cloth Pp 247, with illustrations. Price, $1 00. Philadelphia · P. Blakiston's Son & Co, 1908

This is the first of a series of text-books prepared for and indorsed by the American National Red Cross. The book is compact, concise and clearly written, and in addition to the subjects ordinarily considered in first-aid text-books, contains, as a special section under each head, suggestions for the prevention of accidents, injuries and illness. In addition to individual first aid, the book treats of first aid as rendered by relief columns, bodies designed to administer first aid as organization. Well illustrated instructions are given for the transportation of the wounded, sick and injured, based on the drill regulations of the Hospital Corps of the Army. The book first gives a brief description of the anatomy and physiology of the body; next considers the matter of germs or micro-organisms, describes and illustrates first-aid materials, and gives general directions for rendering first aid, and then takes up specialties as regards shock, common accidents and injuries, common emergencies, occupation accidents and injuries. and injuries and emergencies of indoor and outdoor sports. Suggestions are given for first-aid contests between classes or associations or columns for the purpose of stimulating the study of first aid, and to arouse public interest in the subject. Major Lynch's publication is a most valuable contribution to first aid literature, and it should be widely circulated, not only among first-aid organizations, but in schools, factories and other places where large numbers of individuals are employed. It will prove a great aid in the movement for the prevention and relief of human suffering

MINOR MALADIES AND THEIR TREATMENT By Leonard Williams, M D, M R C P, Physician to the French Hospital; Assistant Physician to the Metropolitan Hospital, and Late Assistant-Physician to the German Hospital. Second Edition, Revised and Enlarged Cloth Pp 404 Price, $2 50 New York, William Wood & Co, 1908

The material utilized in this volume is taken from lectures delivered by Dr Williams under various titles at the Medical Graduates' College and Polyclinic. While the matter has been revised and amplified, the general style of the original form has been adhered to, the object being to present in convenient and desirable form detailed information on questions which the ordinary text book deals with in an unsatisfactory manner or ignores entirely. The author says: "The newly qualified medical man, while usually admirably equipped in the diagnosis and treatment of what may be called the classical diseases, is nevertheless but very partially informed on many subjects concerning which he will be expected to speak and act with authority as soon as he enters practice" Accordingly, he has collected a large amount of valuable and practical advice on such topics as colds, coughs, sore throats, indigestion, rheumatism, neuralgia and headache, change of air, etc.

TEXT-BOOK OF HUMAN [illegible] a Section on Physiologic Apparatus By [illegible] A M, M D, Professor of Physiology and Hy[illegible] Medical College Third Edition, revised and enlarged Pp 752, with illustrations Price, $3 00 Philadelphia P Blakiston's Son & Co, 1908

In addition to having the entire text revised, the third edition of this work has had about fifty pages of new material added This new matter is found in those chapters which deal with the physiology of muscle tissue and of the heart and vascular system, with the chemistry of the proteins and with the nervous system and vision The illustrations, which are numerous, have been made more valuable by the addition of some new diagrams While the book is in no sense exhaustive, its freedom from discussions of matter having a purely academic interest makes it that much more valuable for the student. The arrangement of the subject matter is good and the amount of space devoted to various departments is well balanced. Possibly too much space is devoted to the study of optics, though the weakness of the average medical student in physics may justify any apparent over-emphasis given this particular subject.

APPLIED SURGICAL ANATOMY By George Woolsey, A B, M D, Professor of Anatomy and Clinical Surgery in Cornell University Medical College Second Edition Cloth Pp 601, with illustrations Price, $4 50 Philadelphia: Lea & Febiger, 1908

This work is the result of eighteen years' experience in the teaching of anatomy. As the author modestly says "the number of excellent works on applied anatomy is large enough to render the exhaustion of an edition of any one a fair presumption of its fitness to survive." The work has been carefully revised, a number of sections having been rewritten or amplified, and about seventy-five additional illustrations introduced It is a book to be commended, not only to students and teachers of anatomy and surgery, but also to practitioners.

PRACTICAL DIETETICS With Reference to Diet in Disease By Alida Frances Pattee, Graduate Department of Household Arts, State Normal School, Framingham, Mass Fifth Edition Cloth Pp 358. Price, $1 Mount Vernon, N Y.. A F Pattee

This is a practical book which should be invaluable not only to nurses, but to physicians. The recipes are simple, and any household could furnish the ingredients. The articles on diet in special diseases are taken principally from the recognized text books on dietetics. One part of the book is devoted to dietaries of various hospitals. Diet in infancy is given considerable space, various formulas being given. The appendix, "Practical Suggestions for the Nurse in the Sick-Room," is especially commendable.

INJURIES OF NERVES AND THEIR TREATMENT. By James Sherren, F R C S Eng, Assistant Surgeon to the London Hospital Cloth Pp 310, with illustrations Price, $2 00 New York. William Wood & Co, 1908

This manual contains material used in papers previously published in medical journals After considering the classification and method of production of nerve injuries, the symptoms resulting from incomplete and complete injury of the nerve and the method of examination in such cases, Sherren discusses the differential diagnosis and treatment of nerve injuries in general. Injuries of special nerves as the cranial nerves and cervical sympathetic nerves, the brachial plexus, the nerves of the lower and upper limbs and the cauda equina, are also considered The illustrations, which are numerous and clear, are in most cases original.

GLIMPSES OF MEDICAL EUROPE By Ralph L Thompson, M D, Professor of Pathology, St Louis University School of Medicine Cloth Pp 235, with illustrations Price, $2 00 Philadelphia and London J B Lippincott Co, 1908

This is a reprint of a series of letters which originally appeared in the *St. Louis Medical Review*. The author touches lightly on the clinics and purely medical subjects and writes entertainingly of life in the various European capitals as seen by a casual visitor His accounts of the little-written of Scandinavian and Russian hospitals and universities are of special interest

HYGIENE FOR NURSES By Isabel McIsaac, Formerly Superintendent of the Illinois Training School for Nurses Cloth Pp 208 Price, $1 25 New York Macmillan Company, 1908

This book is unusually practical in all its details, which might be expected from the fact that Miss McIsaac was for many years superintendent of the Illinois Training School for Nurses. She emphasizes the importance to nurses of a knowledge of hygiene and sanitation as applied to daily life: "Pure water and good drainage will not ensure against epidemics a household or hospital which harbors dirty ice-boxes, cellars stored with decaying fruit and vegetables, dirty kitchen sinks, drains, bath tubs and water closets, unclean beds, unwashed bodies and clothing, bad ventilation and food, and rooms crowded with useless decorations covered with dust."

THE DOCTOR IN ART A Volume of Twenty five Reproductions of World Famous Masterpieces Edited by Charles Wells Moulton Cloth Buffalo The Douglas Publishing Co

This consists of reproductions of twenty five world-famous pictures dealing with medicine. Each illustration is accompanied by text describing the picture and giving the name of the painter.

Medicolegal

Rights in Licenses and Powers with Reference to Revocation of Same

The Supreme Court of Nebraska had, in the appeal of J. T. Mathews vs. Hedlund and the State of Nebraska, a case that was originally brought to revoke the license of Mathews as a physician. The State Board of Health revoked the license, and the District Court of Lancaster County affirmed its action. Then this appeal was taken, wherein the Supreme Court affirms the judgment of the district court, sustaining the revocation of the license.

The Supreme Court holds that an order made by the State Board of Health, under Section 9800 and following sections of Cobbey's Statutes of 1907, revoking for cause the license of a physician to practice medicine, surgery and obstetrics in Nebraska, may be reviewed in the district court by error proceeding under Section 580 of the Code of Civil Procedure, which provides that a judgment rendered, or final order made, by any tribunal, board or officer exercising judicial functions, and inferior in jurisdiction to the district court, may be reversed, vacated or modified by the district court. Said sections do not contravene Section 15, Article 3, of the Constitution of the State of Nebraska, nor are they repugnant to the fourteenth amendment to the Constitution of the United States.

In a hearing before the State Board of Health for committing a criminal abortion on a pregnant woman it is not necessary to allege or prove that she was in any stage of utero-gestation, but simply that she was pregnant of a vitalized embryo or fetus. A trial and conviction in a competent court is not a condition precedent to the institution and prosecution of said proceedings.

In case the secretaries of the board refuse to issue subpœnas for witnesses for the defendant, or to compel witnesses to answer material questions propounded by him, or refuse to hear argument, that conduct will not be considered in the district court, unless the defendant requested the board to direct its secretaries to comply with the defendant's requests, and said board improperly refused so to do. In case the secretaries and the board find against the defendant, but by mistake or oversight the record does not evidence their said action, said board has power to correct its record so that it will speak the truth, even though error proceedings are then pending in the district court.

In contested proceedings for the revocation of a physician's license to practice medicine, it is within the discretion of the State Board of Health, and of its secretaries, to receive affidavits relating to relevant facts at issue in said hearing. In said proceedings, if it appears that the State Board of Health has acted within its jurisdiction, and that all of the jurisdictional facts essential to uphold its final order are sustained by some evidence competent for that board to consider, its orders will be upheld in error proceedings to the district court, and on appeal to the Supreme Court.

The Supreme Court bases its decision on reasons stated therefor by the Supreme Court Commissioners. In the opinion prepared by the latter they say, among other things, that the State Board of Health filed a motion to dismiss this case for want of jurisdiction of the court to review the board's order in error proceedings. The argument of counsel, although forceful and learned, urged no better reasons in favor of his client's contention than were presented in Munk vs. Fink, 75 Neb., 172, wherein the identical point was considered and decided against said board. The court was asked to overrule Munk vs. Fink for the alleged reasons that the board is not inferior in jurisdiction to the district court; that in said proceedings it exercises administrative functions only, and that its orders may not be reviewed by petition in error. But in the instant case the legislature selected three state officers and vested them with power to subpœna and examine witnesses, to take depositions according to the Code and to determine certain facts. While sitting as that special board, their functions approximate the judicial, and they are as well within the scope of Section 580 of the Code as were any of the officers referred to in the Nebraska cases cited.

It was urged that one can not have a property right in a license to practice medicine; that it is within the police power to name the conditions on which such a permit shall issue and may be enjoined, and that the holder thereof takes the privilege with the conditions annexed that his license may be revoked at any time by the power that gave it. There is much force in the argument, and many authorities may be cited to sustain it, but the commissioners are of opinion that after a license has been issued, the right thereunder to practice medicine is a valuable right, and one that may not be taken away without good cause; that if such license is canceled by a board of health, it must be on proper charges, with opportunity to appear and defend by the introducing of evidence and the cross-examination of those witnesses who testify against him at the hearing. The hearing in the present case did not involve the determination of the learning or professional skill of the defendant, but whether he had performed a criminal operation on the person of a patient. Under the circumstances of this case the revocation of the defendant's license was analogous to a forfeiture, and involved the exercise of judicial or quasi judicial power, within the meaning of Section 580 of the Code.

It has been uniformly decided in numberless cases that the legislature may regulate the practice of medicine, and require practitioners to conform to those requirements, or in default thereof cease their practice, that subsequent legislation may impose greater burdens on a practicing physician, and that thereby he is not deprived of any privilege or immunity guaranteed by the Constitution.

Any One May Testify to Own Ribs Being Broken—Careless Omission to Use Crutches

The St. Louis Court of Appeals says that it was assigned for error in the personal injury case of Wise vs. Wabash Railroad Co. that the plaintiff was permitted to testify her ribs were broken, the argument being that no one but an expert physician was competent so to testify. But what the plaintiff testified regarding this matter was admissible, for she said she positively knew her ribs were broken, and felt the ends of them rubbing against each other. The weight of her testimony was for the jury, and it was the privilege of counsel for the defendant to cross-examine her for the purpose of discrediting either her knowledge or truthfulness. A party to an action might testify corruptly or mistakenly about a rib or other bone in his body being broken, as he might about any other fact; but such an injury is not so obscure as to lie beyond the pale of common testimony and depend entirely on the opinion of experts.

With regard to a sprain or rupture of the ligaments of the foot, the plaintiff was not entitled to recover damages for any aggravation of the injury to her foot due to careless nonobservance of the advice of her physician about keeping her weight off it. Her statement that she used crutches for 18 months in the house, but not when she went outside, that she sometimes walked around a block of the town, went to church on Sunday, visited her friends in a carriage, walking to the carriage from the house and back without crutches, showed beyond question that she fell short of substantial compliance with the physician's direction. From the entire testimony it obviously was necessary for her to use crutches until her foot was well. The omission to use crutches to the extent she did was a disobedience of the physician's order, and one the jury might find was careless; for her excuse for her conduct was not the compulsion of some necessity but that the crutches were awkward.

County Not Liable for Goods Destroyed by Local Board of Health

The Supreme Court of Appeals of Virginia holds, in Louisa County vs. Yancey's Trustee, that the county was not liable for goods destroyed by the local board of health after smallpox had broken out in a building in one room of which there was a general store and the building had been used as a place of quarantine. The court says that by section 1713d of the Virginia Code of 1887 (page 885 of Code of 1904), the local board of health was authorized, among other things, to see to the abatement of nuisances. But there is no provision in that section, or elsewhere in the Virginia statute law, which makes the county liable for the value of property destroyed as a nuisance by the local board of health. Without such a statute, it seems to be well settled that there can be no recovery against a city, and still less against a county. It is also well settled that destroying property because it is a dangerous nuisance is not, as seemed to be contended in this case, an appropriation of it to a public use, but is to prevent any use of it by the owner and end its existence, because it could not be used consistently with the maxim, "So use your own as not to injure another's," and that in abating nuisances the public does not exercise the power of eminent domain, but the police power.

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

Erratum.—In The Journal, March 20, 1909, p. 993, the article in *Annals of Surgery*, February, on the "Cammidge Reaction in Pancreatic Disease," by E. H. Goodman, is referred to as having been published in the *American Journal of Medical Sciences*, January, 1909. The error was due to a misreading of a footnote in the latter journal. The articles are distinct. That in the *American Journal of Medical Sciences* was a preliminary report of work on experimental pancreatitis; that in the *Annals of Surgery* was a report on clinical investigations.

Medical Record, New York

March 20

1 *Nephrectomy, with a Report of Fifty-Three Personal Operations. G. E. Brewer, New York.
2 Cases Illustrating the Results of the So-Called Heath Operation. S. M. Smith, Philadelphia.
3 Hygienic and Climatic Prophylaxis of Tuberculosis in Childhood. F. L. Wachenheim, New York.
4 Blocking Stones in the Lower End of the Ureter. J. J. Buchanan, Pittsburg.
5 Roentgen Diagnosis of Calculi. R. H. Boggs, Pittsburg.
6 Medical and Sanitary Inspection of Schools. R. C. Newton, Montclair, N. J.
7 *Purpura Hemorrhagica; Is It Caused by the Colon Bacillus? S. J. Maher, New Haven, Conn.

1. **Nephrectomy.**—Brewer discusses a series of cases, including every case of nephrectomy in which he has personally operated, without any effort being made to select favorable cases, to demonstrate that the old ideas regarding the danger of nephrectomy *per se* are exaggerated; and that with our modern methods of examination the kidney can be removed in suitable cases with comparatively little risk to life.

7. **Purpura Hemorrhagica.**—Maher reports a case of acute and fatal purpura *hemorrhagica in which the blood was examined, with the following results:*

1. The recently extravasated blood of this case of malignant purpura hemorrhagica contained clumped in its leucocytes bacilli having the cultural and other characters usually ascribed to the colon bacillus.
2. The bacilli isolated either from the fresh or from the old blood had the power on intraperitoneal injection into guinea-pigs, not only to kill the animals in a few hours, but to produce on the wall of the animal's intestines and stomach purpuric patches identical in appearance with those that characterized the disease in the human body.
3. This power to produce purpuric patches on the walls of the intestines of the injected animal was striking and constant, even after the bacillus had passed through four series of guinea-pigs.
4. This power was diminished in the cultures that had been kept for eight days or more in the incubator, although the keeping of the cultures fourteen days in the incubator did not lessen the pathogenicity of the bacillus.
5. The white rat, though more resistant to the first cultures of this bacillus, succumbed in exactly the same way as the guinea-pig when injected with the bacillus that had been through four guinea-pigs.
6. The colon bacillus, although usually fatal to injected guinea-pigs, does not kill so quickly and does not cause the appearance of purpuric patches on the intestinal and stomach walls of the injected animals.

New York Medical Journal

March 20

8 *Pathologic Discovery and Its Bearing on Preventive Medicine. J. G. Adami, Montreal, Can.
9 *Angina Pectoris and Overfeeding. J. Daland, Philadelphia.
10 *An Aid to the Diagnosis of Tuberculosis in Infancy and Childhood. L. Fischer, New York.
11 Excision of Chancre. G. F. Lydston, Chicago.
12 The Prostate, with Reference to the Curability of Gonorrhea. A. L. Wolbarst, New York.
13 Gonorrheal Urethritis in the Female. A. Samuels, Baltimore.
14 *Unusual Cases of Bromid Eruption in Childhood. F. C. Knowles, Philadelphia.
15 Metabolism of Certain Skin Disorders. J. C. Johnston and H. J. Schwartz, New York.
16 Improved Method for Fixation of Tissues and Staining of Sections. J. V. May, Binghamton, N. Y.

8. **Pathologic Discovery and Preventive Medicine.**—Adami combats the false conception of pathology that would limit it to morbid anatomy and histology—the study of the gross and microscopic changes in diseased tissues. Pathology is more than this. It includes the study of disease in all its aspects. It is the science of medicine or all save the not unimportant part that deals with treatment. It is the exact study of the causes, the processes and the results of disease. In regard to preventive medicine it is in the infectious diseases that pathologic research has effected the greatest revolution. Adami discusses the general decrease in the death rate in the last three centuries, taking London as an example, because it is the city which combines greatest population with best hygienic conditions and lowest mortality during the greater part of the last 100 years. Since the discoveries of the causative agents of disease and the utilization of this knowledge the diminution of the death rate in London has been accelerated more than twofold. Had New York been taken, the figures would have yet been more striking, but not so accurate, because there was not in New York to anything like the same extent that preparatory method of progressive reduction in mortality due to an enlightened enforcement of legislation. Adami illustrates his general principles by means of a specific consideration of tuberculosis, malaria and yellow fever. He points out the unsatisfactory conditions under which preventive medicine is carried out in many places. Those who are engaged in this work should do so under conditions that would enable them to devote their life's energy to it. They should receive adequate salary to place them beyond need without the necessity of augmenting their income by private practice or other means, and permanence of position should be assured to them. The author foresees the time approaching rapidly when the good of the community will demand that an important section of the members of our profession shall be servants of the state, their work devoted not to the cure, but to the prevention of disease. He urges the importance of the development of a common health service for the whole Union.

9. **Angina Pectoris.**—Daland reports a case presenting the sensory symptom-complex known as angina pectoris, which showed no signs of the ordinary causes, namely, syphilis, alcoholism, nicotinism or excessive exertion. In addition to excessive mental toil and excitement due to the patient's occupation and the occurrence of rheumatism nearly half a century ago, the only factor of importance was the habitual bolting of large quantities of food, rich in proteids and carbohydrates, producing a marked disturbance of metabolism, as evidenced by the occurrence of indicanuria, acetonuria and intercurrent glycosuria in quantities as great as 8 per cent.

10. *Abstracted in The Journal, Nov. 7, 1908, p. 1627.*

14. **Bromid Eruption.**—Knowles summarizes his article as follows:

1. Bromid eruption may occur in those who are susceptible, independent of the dose of the drug or the length of the administration The larger the dosage, and the longer the ingestion, the greater is the chance of an outbreak.
2. There are practically no constitutional or subjective symptoms in most cases.
3. Because of the slow elimination, the eruption may continue to appear for some weeks after the drug has been discontinued.
4. Almost any type of eruption may be present; in childhood the lesions are usually larger and more persistent than in adult life. The extremities and the face are the parts most frequently attacked; the most extensive eruption, in the majority of the cases, occurs on the legs.
5. Lesions have a great tendency to occur at points of previous inflammation, such as on vaccination scars or injuries.

Boston Medical and Surgical Journal

March 18

17 *Arteriosclerosis G S. C. Badger, Boston.
18 *Some New Applications of Electricity and Light in Medicine H W Van Allen, Springfield, Mass
19 *Hand Sterilization (continued) C G. Cumston, Boston

17. **Arteriosclerosis.**—Badger discusses this subject and says among other things that the presence of arteriosclerosis does not always call for treatment. There may be no symptoms attributable to it, and the damage already done to the vessel walls can not be cured; at best, the process may be stayed or hindered. Etiologic factors must be corrected. The presence of high blood pressure does not always demand treatment, as in some cases it is protective against disaster; a falling pressure is often an ominous sign. The main reliance in treatment must be placed on the ability properly to regulate the life of the individual.

18. **Electricity and Light in Medicine.**—Van Allen describes some of the later applications of electricity and light in medicine, and says that one of the most valuable additions to diagnosis by Roentgen ray is the stativ, which makes the study of the movable organs in motion possible, and, together with the use of bismuth, opens up new fields of investigation in stomach and sinus work. Kidney conditions, beside stone, are many times shown. The Morton wave current reduces congestion and chronic inflammation. Autocondensation modifies the high blood pressure so frequently observed in American life. Light combined with heat is useful in superficial skin conditions and in local chronic inflammation of joints and muscles

19. Published in the *Dublin Journal of Medical Science*, January and February, 1909.

Lancet-Clinic, Cincinnati

March 20

20 *Gastric and Duodenal Ulcer. W D. Haines, Cincinnati
21 *Duty of the Physician in Raising the Standard of Rural Life B Holmes, Chicago
22 Factors in the Development of Acute Pulmonary Edema J L Miller, Chicago

20. A practically identical paper by the same author was abstracted in The Journal, Jan. 30, 1909, p. 414.

21. **The Physician and Rural Life.**—Holmes points out the duty of the physician in raising the standard of rural life. He remarks on the numbers of young men and women who, having good country homes and considerable financial resources, yet have a distaste for farm and country life, and rush into the cities He discusses the causes of this, and says that both from a social and artistic standpoint the farmhouse is woefully below the standard of the city. Our people do not seem to know what a garden is. This is due not to lack of resources, but to lack of taste. The causes of this distaste to country life, notwithstanding the improved conditions of farming operations and the introduction of means of culture, must be looked for in uncongenial neighbors or faulty education. The standard of life, to effect anything, must be communal rather than family or individual Rural life must be idealized, farming must be not a trade but a life vocation. The farm must be looked at, not as "a plant," but as "a home" The country school education assists the exodus by being a stepping stone to the town school as that is to the city school. Not a single hour in a year's schooling is devoted to idealizing farm life; on the contrary it tends to disparage the farm. Association and excitement are requisite. Good roads, the trolley and the automobile will encourage the former; the latter should be furnished at home. Sports should be encouraged in the country as they are in the city. Festivals, fêtes, etc, should be encouraged. By example the physician may show what may be done to make the home convenient, comfortable and inviting, and to demonstrate the labor saving and life saving decencies of the city house, applied under rural surroundings. He may help the school and the uplifting of the merchant class Holmes thinks it possible that an active part in such a social movement would restore the doctor to that leading place in the community which, it must be admitted, he has failed to inherit from his ancestors.

Northwestern Lancet, Minneapolis

March 15

23 Obstetric Observations Based Chiefly on Fifty Recent Confinements F. Leavitt, St. Paul
24 Exophthalmic Goiter. F. A Dunsmoor, Minneapolis
25 Eye, Ear, Nose, and Throat Conditions in Children. E D. Putnam, Sioux Falls, S D

Monthly Cyclopedia and Medical Bulletin, Philadelphia

February

26 Treatment of Typhoid with a Solution of Calcium Creosote. L Kolipinski, Washington, D C.
27 *Ocular Traumatism, A Cause of the Neuroses. H. F. Hansell, Philadelphia
28 Tuberculosis of the Uterus, Cervix, and Vagina, with Pyometra E A Schumann, Philadelphia.
29 Thyroid Preparations in Practice. C E. de M. Sajous, Philadelphia
30 Diabetes Mellitus and Catarrhal Jaundice. J. V. Shoemaker, Philadelphia
31 The *Spirochæta Pallida* W. C. Batroff, Philadelphia.
32 Baldness M L Ravitch, Louisville, Ky.

27. **Ocular Traumatism.**—Hansell insists that ocular traumatisms, like traumatisms to other parts of the body, may be the cause of hysteria, and he discusses the value of expert medical testimony in trials for damages resulting from ocular injuries and their effects on the nervous system. He contends that medical testimony has come to mean nothing. The evidence of one expert is balanced by that of another. As a remedy he would advocate the exclusion of medical experts selected by interested parties from all cases.

Journal of Missouri State Medical Association, St. Louis

February

33 *Treatment of Fracture of the Shaft of the Femur by Combined Plaster of Paris and Light Iron Splints W. B Deffenbaugh, St Joseph
34 Fibroid Tumors of the Uterus Complicated with Pregnancy. W B Dorsett, St Louis
35 Prophylaxis of Insanity. W. Robinson, Nevada.
36 National Public Health Movement. M. P Overholser, Harrisonville
37 Misleading Conceptions in Treatment of Appendicitis H. C. Crowell, Kansas City
38 Inversion of the Uterus, with Expulsion of Large Necrotic Myoma F Hinchey, St Louis
39 The Physician s Relation to the Pharmacist, Practically Considered J L Ormsbee, Springfield.
40 Therapeutics W A McKelvey, Minden Mines
41 Tuberculous Adenitis of Mesenteric Lymph Nodes. L Rassieur, St Louis

33. **Combined Plaster and Iron Splints.**—Deffenbaugh describes the treatment of fracture of the shaft of the femur by long flexible galvanized iron splints, one inch and a half wide, and sufficiently long to reach from the waist to a little below the external malleolus. This splint is attached to the outer side of the leg, and plaster bandages are applied over it. Deffenbaugh claims for this method that it is easily procurable, cheap, affords the best form of immobilization by plaster of paris, together with extension and counterextension by means of the splint, lightness, promptness, shorter stay in bed, ease of application and comfort.

American Medicine, Burlington, Vt.

February

42 Symptoms and Diagnosis of Incipient Tuberculosis J. B. Huber, New York
43 Influenza Affecting the Upper Respiratory Tract. H. Jarecky, New York
44 *Surgical Treatment of the Tuberculous Larynx. L J Hammond, Philadelphia
45 Diet and Elimination of Chlorids. J C. Warbrick, Chicago.
46 Ulcus Carcinomatosum Diagnosed During Life Partial Autopsy A Bassler, New York City
47 Diet in Chronic Diseases of the Adult W. Stevens, New York
48 *Prophylaxis and Treatment of Diarrheas of Children and of Gastric Disturbances H Johnston, Birmingham, Ala
49 Short Biography of Dr J. J Elwell. T H Shastid, Marion, Ill
50 Prostatectomy and Bladder Surgery. C. Goodman, New York

44 **Laryngeal Tuberculosis.**—Hammond discusses the symptoms, prognosis and treatment, and says that the indications for surgical treatment of the larynx are: (1) To relieve dyspnea and dysphagia; (2) to encourage healing of the ulcers by forced rest of the larynx, (3) to put the larynx in a condition to derive the greatest benefit from local treatment. The results of tracheotomy in his hands have been very encouraging, and he considers that this procedure should be recommended as a cure for laryngeal tuberculosis early in the disease, as soon as the classic symptoms are demonstrated, and for the relief of those in whom the disease is advanced beyond possible recovery.

48. **Gastric Disturbances of Children.**—Johnston urges that the first indication in the treatment of bile trouble in infants is dietary. Food must be stopped for a longer or shorter interval. but the *nursing baby returns to it earlier than the older* child. The food should be weak and small in quantity. After stopping the food, the stomach and bowels must be emptied, the first by a stomach pump, the second by castor oil or calomel. When the intestinal tract is empty we may resort to *astringent medicaments, of which Johnston prefers bismuth* subnitrate. Children early show shock, wherefore stimulants are soon demanded, and Johnston regards whisky in small doses as the best nerve stimulant for a child. The nervous system must never be forgotten, and there must be as little friction as possible. *Irrigation* of the bowels with normal salt solution is useful. Quiet, plenty of water and fresh air and carriage driving if possible, in the early morning or evening, are called for. Hydrotherapy should be resorted to for fever. He sums up as follows: "Treat the individual—treat him as a corporate whole and not as a mere inflamed or irritated bowel—and do not forget his nervous system."

Woman's Medical Journal, Toledo, Ohio

February

51 Psychotherapy, Its Use and Abuse. L. V. G. Mackie, Attleboro, Mass.
52 Cesarean Section for Disproportion Between Pelvis and Fetus and Accidental Hemorrhage. M. K. Formad, Philadelphia.

Journal Abnormal Psychology, Boston

February-March

53 *An Interpretation of the Psychoanalytic Method in Psychotherapy, with Report of a Case so Treated. W. D. Scott, Chicago.
54 Emotional Expression in Dementia Præcox. J. W. De Bruyn, Ann Arbor, Mich.
55 Mental Causes in Bodily Disease. T. A. Williams, Washington, D. C.
56 *The Unconscious (concluded). M. Prince, Boston.

53. **Psychotherapy.**—Scott discusses the psychoanalytic method, and says that it seems a matter of indifference which means of applying the method is used, whether hypnosis, hypnoidization or free association. He holds that the psychoanalytic method is nothing more than an unusually skillful application of the method of suggestion, and that it offers no proof of the existence of subconscious complexes of suppressed emotional ideas.

56. **The Unconscious.**—Prince closes his consideration of the unconscious with a consideration of the influence of the unconscious on the psycho-physiologic organism: the psychogalvanic reflex; visceral disturbances and mental disturbances; the excitation of psychopathic states; and the influences of psychoanalysis on the mental processes of every-day life. He describes and illustrates the splitting of complexes. and says that the great mass of our ideas involve associations of the origin of which we are unaware, because the memories of the original experience have become split. and a large portion thus has become forgotten, even if ever fully appreciated. There is every reason to believe that much of this forgotten history can be recovered by appropriate psychoanalytic methods.

American Journal of Medical Sciences, Philadelphia

March

57 *The Dietetic Treatment of Diabetes. T. C. Janeway, New York.
58 *Cardiac Dangers in High Altitudes. J. N. Hall, Denver, Colo.
59 Thrombosis of the Inferior Vena Cava. E. R. Stillman and L. W. Carey, New York.
60 *Complete Auriculoventricular Dissociation Without Syncopal or Epileptiform Attacks. G. Bachmann. Philadelphia.
61 *Origin of the "New-Leather" and "Dry-Friction" Sounds Heard on Auscultation. H. Sewall, Denver, Colo.
62 Habitual or Recurrent Anterior Dislocation of the Shoulder. T. T. Thomas. Philadelphia.
63 Roentgenographic Study of Peristalsis: Relation of Wave Form to Functional Activity. C. L. Leonard. Philadelphia.
64 *Intestinal Sand: The Banana One of its Sources. J. S. Myer and J. E. Cook, St. Louis, Mo.
65 General and Specific Resistance to Tuberculous Infection. K. von Ruck, Asheville, N. C.
66 The Effect of Tuberculin Treatment on the Serum Agglutination of Tubercle Bacilli. H. M. Kinghorn and D. C. Twichell, Saranac Lake, N. Y.
67 *Value of Roentgen-Ray Examination in Diagnosis of Pulmonary Tuberculosis, Especially Early Tuberculosis. P. Krause, Jena, Germany.
68 Treatment of Tinea Tonsurans. R. L. Sutton, Kansas City, Mo.

57. **Diabetes.**—Janeway says that we are powerless to influence carbohyrate metabolism directly. Extracts have done no good; drugs nothing more than relieve symptoms; *diabetic treatment is our main stay. Diabetes is primarily* a disturbance of nutrition in which the power of utilizing carbohydrates is more or less completely impaired. Because the diabetic can use little, if any, of the carbohydrate of his food, he loses this *amount of potential* energy through the urine; *hence loss of flesh* and strength. The problem of the management of the diabetic, therefore, is to nourish the organism with little or no carbohydrate, and at the same time to avoid the danger of acid intoxication, which arises when no carbohydrate is being consumed. Treatment must be based on correct diagnosis, which means more than the discovery of sugar in the urine. It means the determination of (1) the degree of impairment of carbohydrate metabolism or its index, the severity of glycosuria; and (2) the presence or the degree of secondary disturbance of the metabolism, that is, *the severity of the acidosis.* After describing the mode of estimation of the carbohydrate tolerance and the determination of the degree of acidosis, and discussing the general examination of the patient and the mode of classifying cases, Janeway states that the normal adult provides from 1.500 to 2,000 calories of his daily energy requirement in the form of carbohydrates. For the diabetic almost all of this is lost; he must, therefore, be nourished on protein and fat. The test diets given by Janeway contain about 2,000 calories in fat (1 gram = 9.3 calories); butter, thick cream, bacon, oil and cheese figure in them largely. The first three are foods of the utmost *importance for the diabetic. Some difficulty may* arise in having it eaten. Fat is not agreeable to many, and in some cases causes digestive disturbances. As a help in fat digestion alcohol is of distinct value, and it is next to impossible to give the large amounts of fat necessary in diabetes without wine or spirits being taken at the same meal; sweet wines are prohibited. The amount should not exceed an alcohol content of 40 grams in the day. An instructive example of the need for alcohol in the diabetic dietary is that of a Methodist clergyman. who *objected seriously to taking* whisky, and abandoned its use every few months. Each time he did so, an attack of fatty diarrhea made him speedily resume it.

In every case of diabetes the aim should be to free the urine from sugar. The two chief obstacles are psychic. not physical. They are laziness or ignorance in the physician, and self-indulgence in the patient. Sugar and sweets in every form must be permanently interdicted. Patients should be taught to avoid unsuspected sources of starch. such as sauces, gravies and soups thickened with flour. They should be provided with a list of the foods allowed and of those forbidden, and should be quizzed on these until sure of their ground. Excessive water drinking is unwise. Von Noorden's plan of arranging the diet in periods is immensely helpful, and Janeway advises physicians to familiarize themselves with its details. which may be found in his Herter lectures on diabetes. He gives tables of standard strict diet, standard diet with restricted protein. general diet list, dietary equivalents. for mild cases. and for "green days." Acidosis, which occurs during carbohydrate starvation in the normal individual, assumes much more serious proportions in the diabetic. When present it should be watched during treatment as carefully as the glycosuria. Janeway insists that the attempt to overcome the acidosis by allowing much carbohydrate, almost always fails of its purpose. In such cases permanent restriction of the protein is of the greatest value, and occasional "green" or "hunger" days are essential. Janeway considers gluten bread the diabetic's worst enemy.

58. **Cardiac Dangers in High Altitudes.**—Hall discusses the effects of high altitudes in Colorado, and concludes that patients with valvular disease, but with well-nourished heart muscle and fair arteries, almost regardless of age, may go to reasonably high altitudes with safety, if only they follow the rule of making no exertion which causes any considerable dyspnea.

60. **Auriculoventricular Dissociation.**—Bachmann discusses the history of our knowledge of this condition and describes the case of a woman 35 years of age, single, who suffered from it without any complicating syncopal or epileptiform attacks. The article is accompanied by many tracings showing, among other things, the effect of strophanthus and atropin. From published cases, together with the one here reported, Bachmann considers it indubitable that heart block, with its usual bradycardia, can occur independently of any nervous disturbance, which latter, as before stated, is part of the Adams-Stokes syndrome. He calls attention to this because of a tendency to use the two terms, Adams-Stokes syndrome and heart block, as synonyms. Why attacks of vertigo, syncope, etc., should occur with certain cases of heart block and not with others can not yet be satisfactorily answered. In nearly all cases of heart block with the Adams-Stokes syndrome, it has been observed that the attacks were immediately preceded by stoppage of the ventricles, the auricles continuing to beat regularly. The vertigo, loss of consciousness and epileptiform convulsions are therefore thought to be secondary to the arrest of the ventricles and due to anemia of the nerve centers. The cause of ventricular stoppage we do not know.

61. **"New-Leather" and "Dry-Friction" Sounds.**—Sewall reports a case in which positive proof was afforded that "new-leather sounds," as well as the "dry-friction rub," may be perceived in the chest wall when there can be no suspicion of pleural friction. In the case reported he holds that they must have been due to the rubbing together of tissue elements during respiratory movement.

64. **Intestinal Sand.**—Myer and Cook report an interesting case of intestinal sand which they trace unmistakably to resin balls found in the milk tubes of the banana. These resin balls, the contents of the cells, suspended in a fluid rich in tannin, are affected by the secretions of the stomach and intestine in a manner similar to the action of the ferric chlorid, hardening the resin and producing an insoluble tannate. The cell wall is digested or destroyed, and the resin-tannin-containing mass is liberated as a grain of sand. The extreme hardness of the grain found in the feces is due evidently to the prolonged influence of the secretions and salts in the intestinal canal, and the color to a tannate formed, influenced perhaps by other coloring matters in the intestines.

67. Abstracted in THE JOURNAL, Nov. 28, 1908, p. 1897.

American Journal of Obstetrics and Diseases of Women and Children, York, Pa.

March

69 *Blood Pressure, Leucocyte Count and Ophthalmoscopic Examination in Diagnosis of Pre-eclamptic Toxemia. A. J. Skeel, Cleveland, O.
70 *Decidual Change in the Endometrium Due to Causes Other Than Pregnancy. J. R. Goodall, Montreal, Canada.
71 A Variety of Chronic Endometritis, Characterized Clinically by Profuse Hemorrhages. C. C. Norris, Philadelphia.
72 The Sarcomatous Metaplasia of Certain Uterine Fibromata. E. A. Schumann, Philadelphia.
73 Ligation of Pelvic Veins for Puerperal Pyemia. H. N. Vineberg, New York.
74 Protection of the Accoucheur and his Patient. D. H. Stewart, New York.
75 *Surgery of the Spleen with Special Reference to Trauma, A Method of Encapsulation, and Reports of Cases. W. C. G. Kirchner, St. Louis.
76 Fibroid Tumors Complicating Pregnancy. J. H. Carstens, Detroit, Mich.
77 A Month at Bumm's Clinic, Berlin. C. MacFarlane, Philadelphia.
78 Fibroid Tumor of the Uterus Simulating Pregnancy. R. B. Hall, Cincinnati.
79 Hemorrhage at Time of Delivery an Important Factor in Prevention of a Full Secretion of Milk. J. G. Drennan, St. Thomas, Ont.
80 *Acute Gastric and Duodenal Dilatation Treated by Gastrojejunostomy with Recovery. G. Torrance, Birmingham, Ala.
81 *Care of the Rheumatic Child. Le G. Kerr, Brooklyn, N. Y.

69. **Pre-eclamptic Toxemia.**—Skeel reviews extensively the literature of this subject with reference to urine, blood pressure, eclampsia, pre-eclamptic toxemia, leucocytosis, ocular changes, etc., and draws the following general conclusions:

Albumin as a trace in the urine is of no value. It is present in a large proportion of cases of normal pregnancy.

Albumin in considerable quantity, especially if increasing, is a strong indication of mischief. The entire absence of albumin is no proof that the woman is not toxic. Casts and diminished 24-hour quantity add to the value of the urinary findings. Specific gravity is of aid if the 24-hour quantity is known.

Blood-pressure findings *taken by the fingers are of little or no* value. The instrumental method must be used.

The blood-pressure of pregnancy is normal until the last two months, when *a slight rise occurs.* This rise should not give a reading in excess of 150 mm. The presence, over any period, of a greater pressure than this should be considered a serious matter. *During labor* the *pressure* is somewhat elevated and quite variable, and is consequently not to be depended on. After labor blood-pressure should quickly drop to normal. *In eclampsia, the blood* pressure is uniformly elevated, often to an extreme degree. In pre-eclamptic toxemia blood pressure is probably always elevated, and is *of diagnostic and prognostic importance.*

The fact that albumin and casts, with rise of blood pressure, may also be present in nephritis in no way detracts from their value here, because we know that with increasing albumin and increasing blood pressure in pregnancy, convulsions are imminent, regardless of whether or not we are able to distinguish the immediate cause of the patient's condition.

The leucocyte count in eclampsia and pre-eclamptic toxemia is increased 50 per cent. and upward over the normal at the given period.

When using the leucocyte count in these patients care must be taken to exclude the leucocytosis of *digestion, inflammation,* hemorrhage, drugs, etc., and to remember the normal marked increase during and immediately following labor. One must also bear in mind *the greater count normally present* in primiparæ as compared with multiparæ, throughout pregnancy, labor, and the puerperium.

In demonstrable ocular disturbances of early pregnancy, especially *when accompanied by ophthalmoscopic* lesions, *evacuation of* the uterus is indicated. In the latter two months of pregnancy these same lesions indicate a high grade of toxemia, but should be compared with the other findings to decide the treatment.

The whole symptom-complex should be carefully studied day by day, *and as all the methods described are readily available* in nearly every community, the general practitioner should have no difficulty in making use of them.

70. **Decidual Change Not Due to Pregnancy.**—Goodall reports four cases which he looks on as conclusive proof that decidual change, typical in every detail, can occur without pregnancy; and, moreover, the change in pseudodecidua is similar, not to fresh living and functioning decidual tissue, but to tissue that has undergone some degree of morbid retrogressive change, *such as one finds in the endometrium of incomplete abortions and in casts of ectopic gestation.* This fact makes the findings of greater interest *medicolegally,* and is just the condition which one usually finds in sections of uterine casts from cases of ectopic gestation. He draws the following conclusions:

1. Typical decidual tissue, involving the whole endometrium and indistinguishable from that associated with pregnancy can occur without the presence of a fertilized ovum.
2. The agents concerned in the present cases in producing this change seem to be a combination of chronic pelvic inflammatory changes acting on a susceptible patient.

75. *Abstracted in* THE JOURNAL, Oct. 24, 1908, p. 1458.

77. **Bumm's Clinic.**—MacFarlane describes the aseptic technic, Bumm's method of saving the perineum, of dealing with perineal tears, eclampsia and labor in contracted pelvis. She further describes his operative methods.

80. Published in the *Alabama Medical Journal,* November, 1908, and in the *New York Medical Journal,* Jan. 9, 1909.

81. **The Rheumatic Child.**—Kerr points out that even the discovery of a micro-organism of rheumatism would not necessarily exclude the existence of a favoring diathesis. Recognition of a diathesis presupposes that appropriate methods will be instituted to prevent the disease which such a diathesis favors. The child of a rheumatic parent is liable to develop the disease, almost certainly if both parents are rheumatic. It is important to put the defensive arrangements into the best possible *condition.* These are (1) the resistant power *of epithelium;* (2) *healthy endothelium;* (3) perfect elimination; (4) healthy condition of those *organs that invite* infection or favor growth of organisms, *especially* the tonsils; (5) that "indefinite something" known as the "recuperative power." The first three depend on co-ordination and cooperation of all parts; in other words, good general health. The fourth demands removal of diseased tonsils and adenoids. The fifth depends on temperament and health. We can influence the latter, though not the former. There are certain initial manifestations of rheumatism. The most common is tonsillitis. Others are pain in the chest and exertional dyspnea *irrespective of heart disease,* chorea, so-called *growing* pains *or myalgia, torticollis and subcutaneous* nodules, pleurisy and frequent attacks of bronchitis, epistaxis and enuresis, and erythema. It is not wise or necessary to wait for articular

developments. The time to treat rheumatism successfully in children is when any clinical manifestation, backed up by a positive family history, makes the physician suspicious of the tendency to the disease. The indications for treatment are etiologic, pathologic and clinical: 1. The Etiologic Indications are: (a) Absolute rest, both mental and physical; (b) avoidance of solid foods for a few days, abstinence from meat and meat extractives, restriction of sugar, rich proteid foods, whole milk, ripe fruits being allowed, also dextrinized cereals. 2. Pathologic indications are: (a) Combat inflammation of joints; (b) limit or prevent extension to heart, lungs, pleura, or meninges. 3. Clinical indications are: (a) Hyperpyrexia calls for ice bag and tepid sponges; (b) pain in joints calls for rest and local applications; (c) to limit damage to joints use gentle flexion when temperature is subsiding; (d) for tachycardia use a cold compress over heart, fifteen minutes out of every hour; (e) profuse perspiration should be wiped dry at first, but not checked; later it may be stopped by tepid baths; (f) anemia and debility call for tonics, etc. The author considers salicylates of value, but only as palliatives. They tend to disturb the digestion in children and can not be continued long; sodium bicarbonate should be given with them or immediately following their discontinuance. There is this chief difference between the adult and child types of rheumatism. In the former it is expressed as an acute polyarthritis, with the symptoms all massed. In the latter, its common occurrence is in the non-arthritic forms, with cardiac changes as a common manifestation and the symptoms spread over a long period, so that often the history of the disease is the history of the child's life.

Journal of Experimental Medicine, New York

March

82 *Active Immunity Produced by So-Called Balanced or Neutral Mixtures of Diphtheria Toxin and Antitoxin. T. Smith, Boston.
83 Histologic Changes in Nerve Cells Due to Total Temporary Anemia of the Central Nervous System. L. Gomez and F. H. Pike, Chicago.
84 *Pathologic Anatomy of the Pancreas in Ninety Cases of Diabetes Mellitus. R. L. Cecil, New York.
85 Studies in Edema. M. S. Fleisher, D. M. Hoyt, and L. Loeb, Philadelphia.
86 Postmortem Rigor of Mammalian Heart and the Influence of An Antemortem Stimulation of the Pneumogastric Nerves on Its Development. D. R. Joseph and S. J. Meltzer, New York.
87 Action of Glandular Extracts on the Contractions of the Uterus. I. Ott and J. C. Scott, Philadelphia.
88 *Presence of a Weak Hemolysin in the Hook Worm and Its Relation to the Anemia of Uncinariasis. G. H. Whipple, Baltimore.
89 *Experimental Study of the Metabolism and Pathology of Delayed Chloroform Poisoning. J. Howland, New York, and A. N. Richards, Chicago.
90 Partial Progressive and Complete Occlusion of the Aorta and Other large Arteries in the Dog by Means of the Metal Band. W. S. Halsted, Baltimore.
91 *New and Simple Method for Serodiagnosis of Syphilis. H. Noguchi, New York.

82. **Active Immunity.**—Smith finds that in guinea-pigs an active immunity lasting for several years can be produced by the injection of toxin-antitoxin (diphtheria) mixtures which have no harmful effect. Mixtures that contain an excess of toxin produce more immunity, however, than the neutral mixture. The method invites tests in regard to its applicability to human beings, especially for the purpose of general protection.

84. **The Pancreas in Diabetes Mellitus.**—Cecil says that lesions of the pancreas occur in more than seven-eighths of all cases of diabetes mellitus, and in such cases the islands of Langerhans constantly appear changed, the lesions in some cases being limited to these structures. In half of those cases of diabetes in which the pancreas shows no changes, the size of the pancreas or the number of islands is less than normal.

88. **Hemolysin in the Hook Worm.**—Whipple finds that the hook worm contains a weak hemolytic agent, soluble in salt solution and present in all parts of the worm. This hemolysin is not specific, and Whipple regards it as unlikely that it has any relation to the anemia of uncinariasis.

89. **Delayed Chloroform Poisoning.**—Howland and Richards find that in dogs chloroform anesthesia lasting more than half an hour causes demonstrable fatty changes in the liver, first appearing in the intermediary zone. More prolonged and especially repeated anesthesia gives rise to necrosis, also beginning in the center and sometimes extending so that all the cells of the liver may become necrotic. There may be a more or less hemorrhagic extravasation. Calcium deposits surrounded by giant cells were observed in necrotic areas and constitute a new observation. Fat necrosis also occurred in one case in the omentum and mesentery. Congestion and areas of hemorrhage in the gastrointestinal tract and serous membranes are frequent. There is, then, great similarity between the experimental chloroform and those reported in fatal cases. The authors regard death as due to the presence of toxic substances of an unknown nature, which result from either abnormal metabolic processes or failure of the organism to neutralize toxic substances normally formed.

91. This paper will be discussed editorially.

Progressive Medicine, Philadelphia

March

92 Surgery of the Head, Neck and Thorax. C. H. Frazier, Philadelphia.
93 Infectious Diseases, Including Acute Rheumatism, Influenza, and Croupous Pneumonia. R. B. Preble, Chicago.
94 Diseases of Children. F. M. Crandall, New York.
95 Rhinology and Laryngology. D. B. Kyle, Philadelphia.
96 Otology. A. B. Duel, New York.

Maryland Medical Journal, Baltimore

March

97 "Hippocrates." (460-370 B. C.) H. M. Cohen, Baltimore.
98 Diseases of the Rectum. J. D. Reeder, Baltimore.
99 "How the Public Can Help the Medical Profession to Fight Disease." G. M. Linthicum, Baltimore.

Buffalo Medical Journal

March

100 The Tuberculosis Problem in Buffalo. J. H. Pryor, Buffalo, N. Y.
101 Retroversions of the Uterus H. E. Hayd, Buffalo, N. Y.
102 The Surgical Idea in Obstetrics. W. M. Brown, Rochester, N. Y.
103 Gonorrheal Arthritis Treated with Antigonococcus Serum. T. W. Parsche, Chicago

Louisville Journal of Medicine and Surgery

March

104 Significance of Precordial Pain. S. J. Meyers, Louisville.
105 *Surgical Treatment of Pruritus Ani. J. M. Mathews, Louisville.
106 Phlebitis Following Abdominal Operations (concluded). L. S. McMurtry, Louisville.

105. **Pruritus Ani.**—Mathews asserts that any long continued irritation will produce in the terminal nerves a pathologic condition that will resist all local treatment, and surgery is the only agent that can be used, looking to a radical cure. He describes a plastic operation suggested by Dr. Hamilton of Omaha, and quotes the opinion of Hanes that the nerve irritation incident to this disease is confined to the lower inch of rectum, and does not extend to the skin surrounding the anus. Hanes has operated on this theory in several cases, confining his operation to the inside of the gut and leaving the surrounding skin of the anus intact. To date the patients report absolute relief. Mathews describes the operation in one of Hanes' cases. Finally he shows the serious mental effects that occasionally follow on unrelieved pruritus ani.

Denver Medical Times and Utah Medical Journal

March

107 Venereal Diseases W. H. Davis, Denver, Colo.
108 Addison's Disease of Sixteen Years' Duration. N. B. and E. Newcomer, Moorcroft, Wyo.
109 *Cysticercus Cellulosæ* and *Distoma Pulmonale* in Brain. E. W. Lazell, Denver, Colo.
110 Diffuse Cavernous Angioma of Upper Extremity, Complicated by Tuberculosis and Pulmonary Hemorrhage. H. S. Shafer, Denver
111 The Hospital Idea. W. J. Fairfield, Delta, Colo.
112 Classification of Active Principles. J. Burke, Manitowoc, Wis
113 Alcohol as a Diet or Medicine. F. Clift, Provo, Utah.
114 Rheumatism in Children—Its Effects on After-Life and Usefulness: Prophylaxis and Treatment. E. H. Smith, Ogden, Utah.
115 *Manifestations of Rheumatism in Children. E. H. Smith, Ogden, Utah.

115. **Rheumatism in Children.**—Smith says that in the clinical study of rheumatism in children every general practitioner

has open before him an opportunity for original research. Mild and severe cases should be studied together. Statistics from hospitals are usually based on the study of severe and well developed cases. Among the problems needing further investigation may be mentioned: The early symptoms of the rheumatic process, preceding the development of definite organic changes, the relation of digestive disorders to the development of rheumatism in the young, and the occurrence of acute exacerbations of the disease, rather than muscular exertion, as a cause of broken compensation. The importance of interrogating closely the functional capacity of the heart muscle, and of assigning to it its proper share of blame when symptoms referable to the heart occur, should not be lost sight of in the presence of more evident valvular defects. It is important to bear in mind that typical joint symptoms are infrequent in rheumatism as it occurs in children and that a heart lesion may be the first and for a time the only manifestation of rheumatism.

Medical Herald, St. Joseph, Mo.

March

116 Ambulatory Treatment of Fractures of the Thigh: A New Traction Apparatus for Applying Spica Casts and Various Orthopedic Manipulations. C. M. Echols, Milwaukee, Wis.
117 Recognition of Acute Intestinal Obstruction and the Importance of Immediate Operation. J. E. Summers, Omaha, Neb.
118 Leukemia with Report of a Case. O. P. and H. P. Mills, Grant City, Mo.
119 Anesthesia in the Field. W. C. Abbott, Chicago.
120 A Test of Drug Action. J. Burke, Manitowoc, Wis.

New Orleans Medical and Surgical Journal

March

121 *Excision of the External Organs of Generation for Intractable Pruritus. E. S. Lewis, New Orleans.
122 Cutaneous Tuberculin Reaction and von Pirquet's Doctrine of Allergy. G. Dock, New Orleans.
123 *Plague from the Standpoint of the Sanitarian. J. H. White, U. S. Public Health and Marine Hospital Service.
124 Final Results in 181 Operations for Inguinal and Femoral Hernia. Necessity for Resection of the Cremaster Muscle When Hypertrophied. J. M. Batchelor, New Orleans.
125 * [illegible], New Orleans.
126 [illegible] Removal of Bone Spiculum [illegible] B. Gessner, New Orleans.
127 [illegible] nd Treatment with Report of [illegible] Alexandria, La.
128 Delayed Union [illegible] Union in Fractures of the Leg, with [illegible] he Volkmann Step Operation. C. [illegible]
129 Why Louisiana Should Have a Free Sanitarium for the Treatment of the Poor Consumptive. L. Lazaro, St. Joseph.
130 Gleet—Its Causes. F. K. Chalaron, New Orleans.

121. **Intractable Pruritus.**—Lewis refers to the martyrdom caused by this disease, and the varied measures that have been introduced in the attempt to relieve it. He reports the case of a married woman of 35 in whom pruritus followed accidental abortion seven years ago. It grew more intense and with shorter intervals between paroxysms. She had been curetted four times, had used innumerable ointments, etc., dieted and taken medicated baths, and had had *x*-ray, galvanic and faradic treatment, and had been cauterized with silver nitrate and nitric acid. The labia were swollen, edematous, excoriated and cicatrized. The mere touch of the vulva provoked the itching. After three weeks of unavailing medical treatment, an operation was performed for removal of part of the mons veneris, the labia majora and minora, the clitoris and vestibule. He describes the operation. The patient recovered without any untoward symptoms and is now a happy woman.

123. **Plague.**—White summarizes his paper by urging the immediate killing of rats and the examination of specimens from many sections, the training of the people to uphold the health officers in time of danger, the critical watching of all glandular cases and pneumonia cases, as well as many nondescript or indeterminate fevers of severe type. A pathologist should be consulted in such cases.

125. **A Radiologic Frame.**—Granger describes, in an illustrated article a radiologic frame, for which he claims the following advantages: Adaptation to fluoroscopic work, all kinds of skiagraphic work and radiotherapy, provision of a means for finding the normal ray and centering that ray, protection of patient and operator from unnecessary exposure to ray; a means to make all parts rigid, so that no ordinary movement of the patient can disturb the tube when once in position, fewness and simplicity of construction and controlling devices and adaptability to any size office and any make *of operating table.*

International Clinics, Philadelphia

Vol. I, Nineteenth Series, 1909

131 Hospital for Advanced Cases of Tuberculosis. L. F. Flick, Philadelphia.
132 Occupations and So-Called Rheumatic Pains. J. J. Walsh, New York.
133 Mikulicz's Disease and Allied Conditions. C. P. Howard, Baltimore.
134 Acute Tuberculous Rheumatism. A. Poncet and Dr. Leriche, Lyons, France.
135 Diagnosis of Gastric Dilatation. D. Sommerville, London, Eng.
136 Typhobacillosis. L. Landouzy, Paris, France.
137 Nerve Grafting in Facial Paralysis. L. Freeman, Denver.
138 Suppuration in Appendicitis. E. M. Corner, London, Eng.
139 Excision of the Hip Joint in Arthritis Deformans. F. A. Richardson, Boston.
140 Conditions Modifying Operative Work. A. D. Willmoth, Louisville.
141 Case of Acute Yellow Atrophy of the Liver and Pernicious Vomiti [illegible] R. Jardine, Glasgow, Scotland.
142 Intestina [illegible] Pregnancy and the Puerperium. C. G. [illegible]
143 Rupture of Urethra. Acute Urinary Retention. Secondary Syphilis. O. W. Kelsall, Louisville, Ky.
144 *Tuberculous Stricture of the Rectum, with Excision.* S. T. Earle, Baltimore.
145 Etiology and Treatment o [illegible] Disturbances of the Nose. Hay Fever [illegible] and Recurrent Rhinorrhea. C. P. Gra [illegible]
146 Sporotrichosis. Drs. Duval and Vinard, Paris, France.
147 Absorption from the Peritoneal Cavity. W. G. MacCallum, Baltimore.

Journal Michigan State Medical Society, Detroit

February

148 Dr. William Pepper. An Appreciation. H. M. Rich, Detroit.
149 The Parathyroids. A. McLean, Detroit.
150 Tuberculosis in the United States Based on the Returns of the Twelfth Census—with Special Applications to the State of Michigan. J. W. Glover, Ann Arbor.
151 Needs of Michigan in the Fight Against Tuberculosis. A. S. Warthin, Ann Arbor.

Mississippi Medical Monthly, Vicksburg

March

152 Diphtheria. A. J. Jagoe, Clarksdale.
153 The Opsonic Index. W. Krauss, Memphis, Tenn.

West Virginia Medical Journal, Wheeling

March

154 Surgical Treatment of Gallstones. J. E. Cannaday, Charleston.
155 Hyperchlorhydria. J. E. Rader, Huntington.
156 Experiences of a Mine Physician. T. L. Nutter, Clarksburg.
157 Pneumonia. A. Bee, Cairo.
158 Toxic Amblyopia. J. M. Sites, Martinsburg.
159 New Method of Treating the Accessory Sinuses of the Nose. R. H. Powell, Grafton.

St. Paul Medical Journal

March

160 Medical History of Edgar Allan Poe. C. G. Cumston, Boston, Mass.
161 Cooperative Medical Defense—Its Present Status. F. Leavitt, St. Paul.
162 Treatment of Cancer of the Face, Head, and Neck. E. S. Judd, Rochester, Minn.
163 Does the Subject of Medical Ethics Receive Sufficient Attention in the Training of Our Medical Students? A. Henderson, Scanlon, Minn.

FOREIGN

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

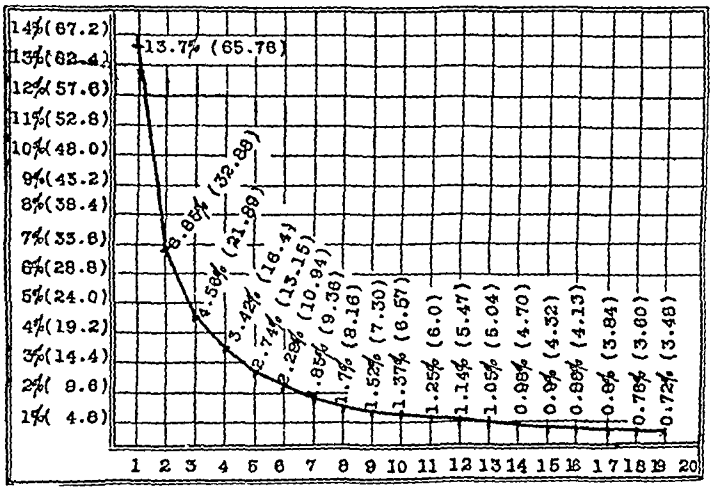
Lancet, London

March 6

1 Morphology and Variations of the Skull. W. Wright.
2 Four Cases of Volvulus Associated with Hernia. R. L. Knaggs.
3 Volvulus of the Entire Small Intestine, Cecum and Ascending Colon, Operation and Recovery. W. Billington.
4 Two Cases of Volvulus Associated with Hernia. J. F. Dobson.
5 *Simple Method of Estimating Amount of Sugar in Glycosuric Urine. T. J. Walker.
6 *Investigation into the Clinical Significance of Albumosuria and Its Value in Diagnosis and Prognosis. J. Henderson.
7 Operations for Rectal Cancer. W. I. de C. Wheeler.
8 Advisability of Removing the Appendix at the Time of Opening the Appendicular Abscess. H. S. Clogg.

5. **Sugar Estimation.**—Walker describes a simple technic for using Fehling's method which he has long employed and which enables him to determine in from three to six minutes

the quantity of sugar in the urine of a glycosuric patient. The apparatus consists of an ordinary test tube, a pipette—one drop measuring a minim—spirit lamp and minim measure. Walker had noted that the copper suboxid in testing with Fehling's solution is occasionally thrown down as a pure red, scarlet or crimson deposit, instead of the yellow, drab or orange precipitate that ordinarily occurs in the usual method of qualitative testing. Experiments showed him that by adding the urine drop by drop to boiling Fehling's solution, and boiling for a few seconds as each drop of urine was added, it was possible to obtain this scarlet precipitate constantly, and not occasionally; and further, that the blood-red precipitate indicated the complete reduction of the whole of the copper oxid to suboxid. By using a measured quantity of Fehling's solution, and calculating by the rule that "10 c.c. of the solution requires 50 mg. of glucose" to complete the suboxidation and to discharge the blue color, he was enabled to evolve the following quantitative test: Draw up into a graduated minim pipette any quantity of the urine to be tested. Boil 30 minims of Fehling's solution in a test tube and into it deliver the urine from the pipette minim by minim (boiling momentarily after each drop) until the blue color is discharged from the Fehling's solution, as indicated by the formation of a blood-red precipitate of copper suboxid. Note the number of minims of urine consumed, and, having found the corresponding figure below the chart, trace the vertical line upward until it meets the curve—the figures, there found, indicate the percentage of sugar and the number of grains to the fluid ounce in the urine. Inasmuch as, with a high percentage of sugar, the minim is too coarse a measure to indicate with sufficient precision the exact amount of sugar in the specimen examined, it is necessary, when the test with the natural undiluted urine indicates more than 2 per cent. of sugar, to repeat the test with one fluid dram of urine diluted with water to half a fluid ounce (a solution of 1 in 4)—test as directed above—multiply by 4 the number of grains per ounce indicated in the diluted urine, and the answer gives the amount in each ounce of the original specimen.



The figures opposite the horizontal lines, as well as those on the curved line, indicate the percentage of sugar, and the corresponding number (figures in parentheses) of grains of sugar per fluid ounce. By "percentage" is understood "weight in volume"—i. e., grains per 100 minims. The figures below the vertical lines indicate the number of minims of urine consumed in discharging the blue color from 30 minims of Fehling's solution.

6. **Albumosuria.**—Henderson describes the history of the discovery of albumoses in urine. He says that permanent and abundant albumosuria of the Bence-Jones type may be regarded as almost pathognomonic of diffuse sarcomatous degeneration of bone marrow. It has been found chiefly in suppurative processes, acute infectious diseases, acute inflammations—especially pneumonia, empyema or large abscess; it has also been found in some cases of *nephritis*. For testing, he uses the biuret method, which he has found useful and satisfactory. He has records of observations in seventy-eight cases of pneumonia, from which he concludes that the presence of albumosuria be regarded as unfavorable. It does not, however, furnish a reliable index of the extent of lung tissue involved. In bronchopneumonia his results were negative, and also in pneumothorax and bronchitis. In pleurisy with effusion only 1 patient out of 6 presented traces at intervals. Out of 3 patients with empyema, 2 showed albumosuria, which disappeared on the evacuation of the pus. A third case of undoubted empyema showed no albumose, which Anderson attributes to a thickened membrane impeding absorption. Two cases of phthisis out of 6 showed albumose. Both were fatal. As regards nephritis, Henderson draws the following deductions from observations on 80 cases:

> 1. In acute and subacute nephritis albumose is rarely present. When present it may be associated with uremia, and may herald its onset.
>
> 2. Albumosuria seems to indicate the presence of a chronic condition and it is most constantly present in the chronic parenchymatous variety.
>
> 3. The presence of albumosuria is often in such cases associated with, though it does not necessarily indicate, an early fatal issue.

In cardiac disease albumose was found in only 5 cases out of 50; 2 were ulcerative endocarditis, both fatal; the third, a fatal case of purulent pericarditis. In appendicitis albumose was found in those cases associated with abscess formation. It was not found in three cases of diabetes mellitus, but was present in one case in which, however, there was extensive excavation in both lungs, of which Henderson considers the albumose an indication. In the majority of cases with which he has dealt, the origin of the albumoses is probably pus, or at least inflammatory exudation. He considers albumosuria a more frequent condition than is generally supposed, and suggests testing for it as an ordinary routine measure, especially in pneumonia, in cases in which suppuration is suspected, or wherever excessive tissue waste is thought to be present.

British Medical Journal, London

March 6

9 *Clinical Facts Regarding Mammary Cancer. Sir H. C. Cameron.
10 *Natural Cure of Cancer. W. S. Handley.
11 *Treatment of Cancer by Potassium Bichromate. J. Fenwick.
12 Physiology of the Female Genital Organs: II. Menstruation. W. B. Bell and P. Hick.
13 Pleural Pains and Adhesions. J. T. MacLachlan.

9. **Mammary Cancer.**—Cameron says that the present clinical teaching in regard to cancer of the breast may be fairly summarized thus: The disease probably invades the body from without, and is at first strictly of local character and consequence. If removed at a very early stage—when the tumor is recent and still small—by an extensive operation definitely planned and carried out, cure may follow. Should no return of the disease occur within a period of a few years—say from three to five—this result may be considered as fairly assured. Cameron quotes from personal experience cases suggesting important lessons, notably that we do occasionally meet with cancer arising a second time in the same individual, the later manifestation having clearly no relation with the early one. He therefore insists on the unwisdom of regarding patients who have been operated on for mammary cancer as permanently cured because they remain free of any indication of recurrence for three, four or five years. He cites two cases in which the patients survived, respectively, for 22 and 33 years after a limited operation, not even the axilla being touched, in contradiction to the belief that no good is possible without extensive procedures. Many cases have convinced Cameron that a mammary cancer may produce extensive involvement of the lymphatics, even before it is of a size which renders it demonstrable. He also insists that besides operating early and widely in mammary tumor the surgeon's duty is equally to remove the entire mamma when operating on the axillary tumor which appears to be cancerous or is subsequently proved to be cancerous by histologic examination, even though he can discover no tumor in the breast.

10. **Natural Cure of Cancer.**—Handley states as follows an unrecognized law of cancerous growth: Every aggregation of carcinoma cells has a definite life cycle, and, after increasing in size for a varying period and at a varying rate, tends spontaneously to undergo degenerative and fibrotic changes. These changes extend from the center of the mass centrif-

ugally to its periphery, lead to its shrinking, and terminate in the replacement of the aggregation of cancer cells by a fibrous scar. In other words, the natural history of a cancer is one of centrifugal growth, followed by centrifugal death. He discusses the microscopic and the macroscopic evidence for the constancy of repair in carcinoma, the life cycle of a typical carcinoma (in six stages), and criticizes the subject of cancer therapeutics as commonly expressed. The literature of cancer therapeutics does not contain the record of a single fact which can not be paralleled in the histories of untreated patients. A study of the processes of natural cure in cancer absolutely destroys the clinical evidence in favor of trypsin, and all other internal medicaments at present known, except Coley's fluid in sarcoma, which seems to possess distinct value. The *x*-rays in accessible growths would promote the tendency to fibrosis, but a very thin layer of normal tissue is sufficient to protect cancer cells from their action. He discusses the secondary effects of the process of natural cure under the three heads: Contraction of the tissues around the carcinoma, cancer *en cuirasse*, and the "brawny arm" of breast cancer. For this latter condition he has devised the operation of lymphangioplasty (see the *Lancet*, March 14, 1908; abstracted in The Journal, April 11, 1908, p. 1224).

11. **Potassium Bichromate in Cancer.**—In a preliminary communication, Fenwick reports 19 cases of his own, and 3 of Dr. Pilkington of Philadelphia, successfully treated by the use of injections of potassium bichromate into the substance of the tumor.

Medical Press and Circular, London

March 3

14 Present Position of Intravenous Treatment. F. Mendel.
15 Medical Inspection of School Children. H. O. Pilkington.
16 Boots, and the Treatment of Corns and Plantar Warts. A Eddowes.
17 The Spirillum of Vincent in Certain Pathologic Conditons of the Mouth and Throat. M. B. Arnold.
18 Use of Digitalis in Disorders of the Peripheral Circulation. J. T. MacLachlan.

Clinical Journal, London

March 3

19 Occurrence of Pulmonary Complications after Operation. C. M. Moullin.
20 *Cardiopathies of the Menopause. L. Williams.
21 Fatal Lymphocythemia (Lymphatic Leukemia) in a Boy of Six. L. Guthrie and W. D. E. Emery.

20. **Cardiopathies of the Menopause.**—Williams points out that menstruation is to be regarded, first as a hemorrhage, secondly as an excretion, and thirdly as the result of an internal secretion, one of whose effects is a partial vasodilatation, which is normally compensated for by a vasoconstriction elsewhere. At the menopause these activities cease, and the cardiovascular system is called on to adjust itself to the profound change which is thus effected. During the reproductive years, the systemic blood pressure is lowest (about 110 mm. Hg.) immediately after a period, gradually rising until immediately before the next period, when it reaches from 130 to 150 mm. Hg. With the establishment of the flow, the pressure gradually subsides. This process we know to be effected by the internal secretion of the ovary, supplemented and balanced by some other internal secretions, among them probably that of the thyroid. If, now, the vasodilating ovarian secretion gradually diminishes to the point of disappearance, while the balancing vasoconstrictor secretion, instead of diminishing, remains constant, it is obvious that a decided increase of general blood pressure must ensue. Add to this the absence of the pressure-relieving monthly hemorrhage and the retention of the vasoconstrictor toxins, and we have the conditions eminently favorable to a prolonged and threatening increase of pressure within the arteries. A large proportion of the troublesome symptoms of the menopause are accompanied by a decided rise in blood pressure. Manometric readings of 180 mm. are by no means rare, especially in obese women and when there is no relief by occasional flooding, but they are not invariable, and in some cases normal readings are found where a supernormal pressure is expected. In such cases, Henderson says, careful examination of the heart itself has never failed to reveal evidence of dilatation, so that the explanation of these cases would seem to be that the retained toxins had concentrated, so to speak, on the myocardium, which was consequently bending behind a more or less normal blood pressure. In other patients, the blood-pressure readings have been rather definitely subnormal. This is difficult to account for, except on the analogy of goutiness, in which the two extremes of blood pressure are also found. He concludes that in the manometer we have a method of distinguishing between two very similar classes of cases, and a means, therefore, of approaching their treatment with some degree of intelligence.

British Journal of Children's Diseases, London

February

22 *Myxedema in Childhood. R. Hutchinson.
23 Forms of Chronic Lung Disease in Childhood. W. H. M. Telling.
24 *Food of Elementary School Children. A. H. Gerrard.
25 Spermatic Cords in Children. E. M. Corner.
26 Distribution of Hernias in Children. E. M. Corner.
27 Angiolipoma. F. V. Milward.
28 Congenital Absence of the Sternal Portion of the Right Pectoralis Major Muscle. J. E. H. Sawyer.

22. **Myxedema in Childhood.**—Hutchinson reports cases, with illustrations, showing the remarkable improvement in children the subjects of juvenile or adolescent myxedema, under thyroid administration. He considers that the lesser degrees of thyroid insufficiency in childhood are apt to be overlooked.

24. This article appeared in the *Lancet*, Feb. 13, 1909.

Australasian Medical Gazette, Sydney

January

29 Lunacy Administration in Australia. E. Sinclair.
30 Hospital Abuse. J. L. Gibson.
31 Renal Surgery. A. Watson.
32 Gangrene of Breast in a Diabetic Patient. H. Swift.
33 Appendicitis (Suppurative), Operation, Subphrenic Abscess, Gangrenous Pneumonia. C. E. Corlette.
34 Poisoning by Inhalation of Fumes from Nitric Acid. P. M. Wood
35 Pyosalpinx, with Unusual Position of Tube. G. H. Skinner.
36 Chorioepithelioma. R. H. Marten.
37 Acute Lymphatic Leukemia. G. A. Buchanan.

Journal of Tropical Medicine and Hygiene, London

February 15

38 A New Locality for the Congo Floor Maggot. A. Balfour.
39 Eclampsia, with Thirty Fits, extending over Three Days. A. L. Hoops.
40 The Hemogregarines of Snakes (continued). L. W. Sambon.
41 Plague Disinfection in India. F. E. Taylor.

Bulletin de l'Académie de Médecine, Paris

February 23, LXXIII, No. 8, pp. 235-260

42 *Index of Serum Refraction in Surgical Affections. (Indice de réfraction du sérum sanguin dans les affections chirurgicales.) Tuffier, Mauté and F.-Franck.
43 *Progressive Myopathic Atrophy. (Histoire d'un myopathique atrophique—du type-scapulo-huméral—suivi pendant près de trente ans.) L. Landouzy and L. Lortat-Jacob.

42. **Refraction Index of Serum in Surgical Affections.**—Tuffier and Mauté have been using this index as a means of diagnosis and prognosis in surgical affections. The index is low in all the surgical affections, suppuration, traumatism or cancer, and the method consequently has not much value in the diagnosis, but from the standpoint of the prognosis it is extremely important. As the blood serum keeps to a constant proportion of albumin with great tenacity, any change in the refraction index shows profound disturbance in the general condition. They consequently refuse to operate on patients with index lower than the normal if there is no edema, and they avoid general anesthesia as much as possible, reducing the trauma of the operation if emergency intervention is required. The index is always lower in bilateral kidney trouble, while it may be high in cachectic conditions when there is much vomiting or if diarrhea is draining the body of fluids.

43. **Progressive Myopathic Atrophy.**—Landouzy describes the final outcome of a case under observation from the age of 8 to 45, and gives illustrations of the early course and postmortem findings. The patient's brother was affected in the same way, and these cases were the basis on which the scapulo-humeral, better known as the Landouzy-Dejerine, type was differentiated. The integrity of the peripheral and

central nervous system distinguishes this form of myopathic atrophy generally familial, without neuropathy, from the neuritic and myelopathic varieties of muscular atrophy. The flexor muscles were affected in the case described much less than the extensors. The case confirms anew the slow but inexorable evolution of the atrophy. The last stage was characterized by numerous retractions of muscles and tendons at different points, causing great deformity. One of the early, warning symptoms of this type is the atrophy of the muscles of the eyelids, the patient being unable to close his eyes.

Lyon Chirurgical, Lyons

March 1, No. 5, pp. 453-584

44 *Operations on the Stomach. (Six ans de chirurgie gastrique.) L. Tixier.
45 Duodenal Cancer. (la forme vatérienne du cancer duodénal.) E. Devic and P. Savy.
46 *Hysterectomy by Wertheim's Technic. (Réflexions sur 211 *opérations pour cancer utérin.) A. Pollosson.*
47 Errors Imputed to Radiography. T. Nogier.

44. **138 Operative Cases of Stenosis of the Pylorus.**—*Tixier* reviews six years of gastric surgery, comparing the clinical history, the details of the operation, the results at the time and during the years since, histologic examination of the parts removed and the postmortem reports. His experience includes 145 cases of stenosis, but in only 138 were all the above known. Among the conclusions from this experience are that the greater the stenosis the less the patients' resisting vitality, and that pylorectomy at one sitting is peculiarly deadly in such cases. On the other hand cancer of the prepyloric antrum, even when large, can be safely operated on at one sitting, if it has not yet given rise to much disturbance from stenosis. He always prefers to operate in two sittings when the cancer is primarily located at the pylorus. In 55 cases gastroenterostomy was the only operation that could be considered, and the survivals ranged from 15 days to 30 months. In 24 cases of cicatricial stenosis one patient was treated by an emergency jejunostomy for uncontrollable hemorrhage from the stomach. Eight months later he implanted the jejunostomy fistula in the posterior wall of the stomach, and the results were excellent. The gastroenterostomy opening healed in only one of the 98 cases in which it was done, this experience confirming the advantages of making the anastomosis as close as possible to the pylorus to benefit by the natural course of the peristaltic waves. In 12 patients with pyloric stenosis from gall-bladder disturbance, the stomach symptoms vanished at once after gastroenterostomy and a supplementary operation on the gall bladder.

46. **211 Operations for Uterine Cancer.**—Pollosson states that in 4 of the 211 cases the cancer of the cervix was associated with pregnancy. He accepts the indications as the same with and without pregnancy; it does not seem to enhance the gravity of the operation. In 6 cases, the cancer was primary in the vagina; 2 of these patients have been cured to date, one for two years. He advocates the abdominal route in such cases and also for cancer of the cervix in pregnant women. The details of the 211 cases are summarized. In several cases the lymph glands extirpated as a routine measure by the Wertheim technic were found already affected with cancerous degeneration, but there has been no recurrence since the operation.

Semaine Médicale, Paris

February 24, XXIX, No. 8, pp. 85-96

48 *Treatment of Postpartum Hemorrhage in Case of Placenta Prævia. R. de Bovis.

48. **Treatment of Postpartum Hemorrhage from Placenta Prævia.**—de Bovis reviews what has been written on this subject in various countries and the results of the various procedures proposed. The only measure, he declares, which is universally applicable and which does not expose to danger of infection is systematic compression of the aorta. Physicians should not shrink from applying it and midwives should be trained to do it properly. In order to be truly effective, the pulse in the femoral arteries must be arrested. In order to render the procedure less fatiguing, he advises getting up on a chair, unless the bed is very low, and thus applying the compression with the weight of the body rather than with the muscles of the forearm alone. By this means the compression can be kept up a long time without exhaustion. It has frequently been kept up for an hour, and one case is on record in which it was maintained for five hours. The compression should be applied near the umbilicus, generally a little above it, pressure being exerted with the slanting fingers, according to Seutin or Suber, or with the side of the closed fist, according to Le Page. The other hand bears down on the first with the weight of the body; the force of the compression is applied a little to the left of the spine. If long kept up, the compressing hand should be moved up or down a little so as not to press continuously in the same place. This procedure has the immense advantage of being within the reach of every one, so that the obstetrician can allow some one else to do it if he wishes to supplement it with other measures. But it should be borne in mind that this alone is sufficient, and that it can be kept up for an hour or two or even for five hours with the simple provision of moving the compressing hand up or down a little. If a reliable rubber tube is at hand it could be wound around the waist according to the Momburg technic, to allow temporary suspension of the compression. On account of the danger of ptosis of the liver or spleen and the friability of these organs at times, he regards this Momburg technic with some distrust. Among other methods of hemostasis, tamponing is the simplest, but there is danger of possible infection, and the difficulty of tamponing effectually. The lower segment of the uterus is a flabby sac, in these circumstances, and can be effectually tamponed only by flattening its walls against the bones of the pelvis. The vagina also has to be packed tight to prevent the tampon in the uterus from slipping. All this requires forceps and assistants and confidence in introducing instruments and fingers and uses up an incredible amount of gauze at a depth which may well make one shrink from attempting it unless perfectly familiar with the technic. Besides the doubtful asepsis, the results are generally disappointing. Suturing does no good unless for a tear in the cervix alone. Among the operative procedures, ligation of the uterine arteries is the most promising, especially when the cervix is seized with forceps as for vaginal hysterectomy. The cervix is drawn as far down and to the right (or left) as possible, and the forceps is applied in the lateral vault of the vagina. Instead, however, of clamping the base of the broad ligaments, as with the Henkel technic, he advises clamping the outer margin of the uterus. As the uterus is pulled toward one side, the forceps is applied almost directly across, from the back forward; one blade includes the anterior and the other the posterior aspect of the uterus. This simple modification of the Henkel technic avoids all possible injury of the ureter or bladder while the vessels are clamped through a considerable thickness of uterine tissue, thus avoiding possible injury of the uterine arteries. The results, he asserts, are as satisfactory as when the main trunk of the uterine artery is clamped—the aim is to arrest the circulation in the part of the uterus containing the placenta; it is not necessary to arrest it throughout the entire uterus. He does not approve of leaving these clamps in place for more than twelve hours, but the technic is so simple that he now applies it as a preventive measure after delivery in all cases in which the women have lost much blood.

Beiträge zur Klinik der Tuberkulose, Würzburg

XII, No. 1, pp. 1-190. Last indexed Jan. 16, p. 254

49 *Experimental Study of Consequences of Unilateral Pneumothorax. (Ueber Folgezustände des einseitigen Pneumothorax.) O. Bruns.
50 *Therapeutic Lung Collapse. (Erfahrungen und Ueberlegungen zur [illegible]) L. Brauer.
51 *Explan [illegible] (Erklärung der [illegible]
52 Opsonin Tests ar [illegible] Tuberculosis. (Opsoninuntersuchungen, [illegible] deutung der Mischinfektion bei der chronischen Lungentuberkulose.) M. Wirths.
53 *The Ocular Tuberculin Reaction. (Ueber den diagnostischen und prognostischen Wert der Konjunktivalreaktion.) O. Ziegler.
54 *The Intracutaneous Tuberculin Test. (Ueber intrakutane Tuberkulinanwendung zu diagnostischen Zwecken.) P. H. Romer

49. **Consequences of Unilateral Pneumothorax.**—The extensive experimental research reported by Bruns from Brauer's medical clinic at Marburg demonstrates that the pneumothorax not only promotes the healing of the tuberculous process but the atelectasis leads to the formation of connective tissue and thus aids in the encapsulation of the morbid process. His research has further confirmed the fact that anything which permanently interferes with the ventilation of the lungs entails extra work on the right heart and leads to hypertrophy of the right ventricle. In chronic bronchitis, pleurisy with adhesions, emphysema, kyphoscoliosis and pneumothorax the ventilation in the lung is hindered but the resulting disturbance is comparatively slight during abstention from muscular exercise. The blood vessels are compressed and the reduced suction and pumping action of the diaphragm and chest wall all contribute to entail extra work on the right heart. The left heart did not seem to be affected in his experiments. The findings in the rabbits and dogs and the controls are tabulated for comparison, and seventy articles on the subject are reviewed from the literature.

50. **"Lung Collapse Therapy."**—Brauer applies this term to measures which seek to immobilize the lung to promote the healing of a tuberculous process. In an illustrated monograph of more than a hundred pages, with a number of radiographs, he describes in detail his experiences with an operation undertaken to answer this purpose when the conditions rendered it impossible to induce artificially a therapeutic pneumothorax. He calls it "the extensive extrapleural thoracoplastic operation for lung collapse therapy." The aim is to place the diseased lung at rest, under a certain amount of compression. When pleural adhesions render a pneumothorax impossible, a plastic operation on the wall of the chest must be very extensive to accomplish the same results. The illustrations show how he realized this: The incision extends along the spine, low under the arm and up in front with resection of several ribs. Several patients in grave danger from a severe and progressive lung process were very much improved; others were not improved and some succumbed. He discusses how the technic can be perfected, his impressions being that this method of treatment has a future for this special class of cases.

51. **Cutaneous and Ocular Tuberculin Reactions.**—Wolff-Eisner supplements his monograph on this subject in the same journal one year ago by giving a number of colored plates, showing the exact aspect of the local reactions.

53. **Ocular Reaction.**—Ziegler declares that his experience with the ocular test on 600 patients has convinced him that it is useless for the early diagnosis and prognosis of pulmonary tuberculosis.

54. **Intracutaneous Tuberculin Test.**—Römer has modified for the clinic the method of intracutaneous *application* of tuberculin practiced by Lignières, of Buenos Aires, on cattle. The findings are identical with those of the subcutaneous test. The method is simple and harmless, and has been previously described by Mantoux as the "intradermoreaction." The findings are estimated by taking up a fold of the skin in a sliding gauge graduated in millimeters. The thickness in millimeters of the fold formed when an area of 5 cm. is taken up in the gauge shows the presence of the specific, intracutaneous hardening reaction to the injection of tuberculin. The technic is illustrated.

Deutsche medizinische Wochenschrift, Berlin

February 25, XXXV, No. 8, pp. 329-376

55 *P- . . . . . ur geburtshilflichen antisepsch.
56 F . . . Suprarenals Implanted in . . . Beitrag zur Lehre der von verlagerten Keimen ausgehenden Geschwülste.) H. Neuhauser.
57 *Sources of Error in Determining the Opsonic Index. (Fehlerquellen der Methode der Opsoninbestimmung nach Wright.) W. Beyer.
58 *Flushing and Suction in Treatment of Empyema *of the* Pleura. (Spüldrainage und Saugbehandlung des Pleuraempyems.) W. Pust.
59 Pathology of so-called Circumscribed Otogenous Meningitis. Engelhardt.
60 *Haeckel and Brass. F. Keibel.

55. **Prophylaxis in Obstetrics.**—Fritsch does not agree with Krönig in several points, especially in allowing palpation through the rectum in the hands of the inexpert. He does not approve of allowing women to get up early after childbirth, nor of preliminary rinsing of the vagina except in difficult cases. He knows of two instances in which the obstetrician palpating through the rectum saw his finger emerge in the vulva. The vagina had been torn and the wall of the intestine had yielded to his exploring finger without his knowledge. In one of these cases the patient succumbed to sepsis. He bases his prognosis of the delivery on the exact determination of the position of the small fontanelle and the turning of the head under the influence of labor contractions. He remarks in conclusion that he has never encountered a case of fatal embolism in a healthy puerpera. All those with phlegmasia or thrombosis in the femoral vein had had fever before, and the puerperium was thus not normal. Thrombi in the legs are sometimes observed during pregnancy, and these would certainly not be improved by allowing the patient to get up early.

57. **Sources of Error in Determination of Opsonins.**—Beyer reports experiences with Wright's technic which show such wide differences in preparations from the same source that it is impossible to base far-reaching conclusions on them. It is his opinion that the method has so many possible sources of error and requires such pains and time that it should be regarded as not practicable for clinical purposes, in its present form at least.

58. **Drainage and Suction Treatment of Empyema of the Pleura.**—Pust proposes a simple modification of the present technics of draining empyema of the pleura. The principle is the same as when a counter opening is made in a raw egg. A curving trocar with a number of openings is introduced just below the upper limit of the empyema and another, curving upward, just above the lower limit. Each has a stop-cock and each is fastened in place with strips of adhesive plaster. Under control of the pulse the stop-cock is opened in the lower and then in the upper trocar. If the pus flows out readily, as much is allowed to escape as the patient can tolerate. The flow can be promoted by change of position or by connecting the upper trocar with an irrigator and rinsing out the pleural cavity with hot water or a solution of potassium permanganate. These rinsings are repeated once or twice a day, closing the stop-cocks in the interim at first. Later it may be an advantage to apply suction to one of the drains. This technic avoids the danger of thoracotomy and sudden pneumothorax. It does not require general anesthesia or assistance, but can be done under ethyl chlorid, and the patients can be up and about at once It spares them the shock of an extensive operation just when they are least fitted to stand one.

60. See Berlin Letter, THE JOURNAL, March 20, page 975.

Deutsche Zeitschrift für Chirurgie, Leipsic

January, XCVIII, No. 1, pp. 1-111

61 *Surgical Treatment of Cancer of the Mouth. (Chirurgische Behandlung der Mundhöhlenkrebse.) P. Steiner.
62 *Surgical Treatment of Cancer of the Breast. (Chirurgische Behandlung des Brustdrüsenkrebses.) Id.
63 True Accessory Retropharyngeal Thyroid. (Struma retropharyngea accessoria vera.) Klaus.
64 New Method of Nephropexy. C. Beck (New York).
65 Snapping Hip Joint. (Schnappende Hüfte—Luxatio tractus cristo-femoralis.) z. Verth.
66 Primary Tuberculosis of Bursæ inducing Sclerosis. (Die primär sklerosierende Tuberkulose der Schleimbeutel.) A. Reinhardt.
67 *Implantation of Thyroid Tissue in Three Cretins. (Implantation von Schilddrüsengewebe bei Kretinen.) E. Bircher.
68 Formation of Calculi in Urinary Passages after Fracture of Spine. (Zur Frage der Steinbildung in den Harnwegen nach Wirbelbrüchen.) Mingramm.
69 Isolated Injury of Hypoglossal Nerve. (Fall von isolierter Verletzung des Nervus hypoglossus.) A. Wertheim.
70 Complicated Firearm Abdominal Injury. (Schussverletzung des Leibes.) R. Reinecke.

61. **Cancer of the Mouth.**—Steiner states that 10.3 per cent. of the patients with cancer of the mouth, operated on at Dollinger's clinic at Budapest, have been cured with no recurrence

for more than three years. The record includes 61 cases of cancer of the cheek, the patients between 27 and 72, with 15.4 per cent. cured without recurrence for three years and 11.5 without recurrence for six years. Only 1 of the 8 patients with cancer of the gum was free from recurrence for seven years and only 1 of the 4 with cancer of palate or tonsil. An operation was attempted in only 25 of the 51 cases of cancer of the tongue and 69.2 per cent. died during the *first year* from recurrence. The predisposing influence of smoking and chewing tobacco, congenital anomalies, scars, psoriasis and leucoplakia was evidenced anew in this material. Only 3 per cent. of the patients were women. The various procedures followed are described in detail.

62. **Cancer of the Breast.**—Steiner reports from the same clinic 170 cases of cancer of the breast; 2.6 per cent. of the patients were men. Heredity was noted in 3 per cent. of the total cases, chronic inflammation in 6.6 per cent., trauma in 17 per cent., and congenital anomalies and Paget's disease in a number. Fully 21 per cent. of the patients have been cured for more than three years. Only 10 per cent. of those operated on by the Heidenhain technic passed five years without recurrence; the proportion is 27 per cent. after the Halsted-Kocher technic.

67. **Implantation of Thyroid Tissue.**—Bircher's experiences were not satisfactory; the thyroid tissue seems to be unable to resist absorption in time. The facts observed suggest that the connection between the thyroid and cretinism is more than mere defective or lacking functioning of the thyroid.

Medizinische Klinik, Berlin

February 21, V, No. 8, pp. 269-308

71 Chronic Non-Tuberculous Bronchial Affections. (Chronische *Bronchialerkrankungen mit Ausschluss der Tuberkulose.*) Posselt.
72 Traumatic Ossifying Inflammation of the Triceps Tendon. (Tendinitis ossificans traumatica der Trizepssehne.) P. Frangenheim.
73 Serotherapy of Meningitis. (Zur Behandlung der Meningitis epidemica mit Meningokokkenserum—Kolle-Wassermann.) F. Lange.
74 Treatment of Chronic Emphysema of Lung and of Asthma. O. Boellke.
75 *Action of Powerful Electric Current on Animal Body. (Wirkung des elektrischen Starkstromes *auf den tierische* Korper.) S. Jellinek.

75. **Treatment of Electric Accidents.**—Jellinek reviews his extensive experimental work to emphasize the importance of artificial respiration in case of electric accidents. He also warns against attempting to push with the foot the injured person away from the live wire, citing cases in which the current entered at the knee and passed into the ground with fatal results. In one case the soft parts were destroyed down to the bone and the patient survived only a few days. A horse was killed by a current of 220 volts merely passing through a wire around his left forefoot for 90 seconds.

Münchener medizinische Wochenschrift

February 23, LVI, No. 8, pp. 377-432

76 *Pneumococcus Influenza. H. Curschmann.
77 *Simultaneous and Irregular Action of Auricles of the Heart. (Ueber Synergie und Asynergie der Vorhöfe des menschlichen Herzens.) E. Rautenberg.
78 Bacteriology of Pseudodysentery in Sumatra. G. Baermann and W. Schüffner.
79 *Treatment of Constitutional Eczema in Children. (Therapie des konstitutionellen Kinderekzems.) Geisser.
80 *Clinical Determination of Blood in the Stools. (Zum klinischen Nachweis von Blut in den Fäzes.) T. Messerschmidt.
81 *Extrauterine Pregnancy. (Extrauteringravidität). Weisswange.
82 Accidental Illness from Mouse-Typhus Bacillus. (*Einige* Krankheitsfälle, hervorgerufen durch Mäusetyphusbazillen.) F. Fleischanderl.
83 *Tuberculosis *as a* Children's Disease. (Tuberkulose als Kinderkrankheit.) A. Schlossmann.

76. **Pneumococcus Influenza.**—Curschmann states that on bacteriologic examination of 49 cases of apparently typical influenza, the pneumococcus was isolated in 46 cases, and the influenza bacillus was never found. There was mixed infection in a few cases. In 20 of these cases inoculation of mice caused typical pneumococcus septicemia. In 77 out of 109 cases of a syndrome suggesting influenza, the symptoms and were typical of true influenza.

77. **Simultaneous and Irregular Action of Auricles of the Heart.**—Rautenberg relates a number of clinical observations bearing on the question whether the auricles always work together or whether one may become paralyzed and the other work on independently. His study of sixty patients with heart trouble of this kind shows that isolated paralysis of one auricle may occur, but that it is extremely rare, much *rarer than is generally accepted.*

79. **Treatment of Constitutional Eczema.**—Geissler has been giving Finkelstein's method of treatment a trial and reports excellent results. The essence of this treatment is to exclude salt from the food, and the experiences related confirm the efficacy of this measure, even for older children. His patients were between 2 and 6 years old. In one case local measures and deprivation of salt arrested the eczema, which healed completely in three weeks, while a previous attack had resisted all measures for several months. In all such cases the eczema was of the "exudative diathesis" type. He declares that we are too apt to forget that this form of eczema is a constitutional anomaly and not amenable to local measures.

80. **Determination of Blood in the Stools.**—Messerschmidt states that the ordinary guaiac test is liable to give negative findings in some cases, even in the presence of blood, especially in elderly patients. This test therefore should not be regarded as absolutely reliable in practice. The findings should be accepted only when positive; when negative they should be supplemented by the benzidin test, which succeeds sometimes when the guaiac test fails. It is important for the *patient to refrain from meat for a few days beforehand.* He has modified the benzidin test and commends his technic as simple and thoroughly reliable: As much benzidin as can be taken up on the point of a knife is dissolved in 2 c.c. of glacial acetic acid. A piece of feces the size of a pea is stirred in 2 c.c. water to which a few drops of acetic acid have been added. To three drops of the resulting fluid, from 1 to 1.5 c.c. of a 3 per cent. solution of hydrogen dioxid is added, and from 1 to 2 c.c. of the benzidin acetic acid solution is stirred into the mixture. In the presence of blood the fluid turns green to dark blue in a few seconds. This technic does away with the necessity for boiling the fluid.

81. **Extrauterine Pregnancy.**—Weisswange affirms that it is as important to diagnose extrauterine pregnancy early as to recognize uterine cancer in its early stages. He reviews the symptoms which by their correlation allow differentiation, remarking that the main point is to bear the possibility of extrauterine pregnancy in mind. Pain is one of the most regular symptoms; it may be spasmodic or occasional or persisting. Another constant symptom is irregularity in the menses if menstruation continues. In addition to the minor signs of pregnancy and pain at a point suggesting hemorrhage in the ovary, any signs of secretion on the part of the breast are very significant. Palpation should be extremely cautious as rupture of the amniotic membranes has many times followed digital explorations. In difficult cases the findings on exploratory puncture through the vagina are instructive. The prognosis under all circumstances is grave, even if the pregnancy progresses undisturbed; at the best, a major operation is necessary at the close. He advocates treating extrauterine pregnancy in all cases from the same standpoint as a malignant growth. Even when the pregnancy is arrested and the products are reabsorbed under conservative treatment, adhesions necessarily follow, and chronic perimetritis is liable to be the outcome. The patient demands not only to be relieved from immediate but to be protected against possible disturbances later. If rupture has already occurred, it may be dangerous to send the patient to the hospital, and the only possibility for preventing the frequent fatal cases in young healthy women is to operate at *once in the home.* In 7 cases of tubal pregnancy 2 of the young women died on their way to the hospital after rupture; another died from hemorrhage and sepsis, the result of the use of the sound and curette. In 4 cases the diagnosis was not made at the right time and one of the women was *treated erroneously* and succumbed in spite of proper treat-

ment at last, which came too late. In the other cases the women recovered after being in grave danger for a long time.

83. **Tuberculosis as a Children's Disease.**—Schlossmann reaffirms that tuberculosis is acquired in childhood and should be prevented, treated and cured in childhood. But he adds that all children are not equally exposed. Among 105 children of the well-to-do in his charge, most of them suspected of tuberculosis, only 4 proved to be actually tuberculous, and 2 of these had been infected by their nurse, who was in an advanced stage of the disease. It is the children of the poor who are most liable to acquire tuberculosis, but even among them chronic pulmonary or simple processes frequently simulate tuberculosis. The diagnostic tuberculin test, he reiterates, is the only means to differentiate the tuberculous children and to allow appropriate treatment to be instituted in time.

Wiener klinische Wochenschrift

February 25, XXII, No. 8, pp. 257-292

84 Pathology and Clinical Diagnosis of Stenosis of Pulmonary Artery with Defects in the Septum. A. Posselt.
85 Hemolytic Autoinhibiting and Complement Properties of Human Serum. H. Hecht.
86 *Resuscitation after being Buried under Caving Sand. (Lebenserhaltung Verschütteter.) P. Silberstein.
87 Orthopedic Apparatus to Prevent Orthostatic Albuminuria from Lordosis. K. Preleitner.

86. **Resuscitation of Persons Who Have Been Buried Under Caving Sand, Etc.**—Silberstein calls attention to the fact that of all forms of suffocation that from being buried under caving sand or dirt or under an avalanche is most slowly fatal. This should be borne in mind, as sometimes no attempts at resuscitation are made, or are made half-heartedly, on account of the long time since the accident occurred, when in reality the victim is still capable of being revived. If the victim's arms are thrown over his face or in any other way a little air space is left around his mouth and nose, it is astonishing how long one can survive, and for how long resuscitation is *still possible*. In a number of cases on record new-born babes buried with infanticidal intent have been dug up alive after intervals up to eight hours. In all these cases the child had been wrapped in a cloth which left an air space and retained the air. Persons buried under snow may long survive as the snow melts away from around the face.

Zentralblatt für Chirurgie, Leipsic

February 27, XXXVI, No. 9, pp. 289-328

88 Disturbances in the Articulation of the Jaw Similar to Dislocation of the Meniscus in the Knee. (Discitis mandibularis.) Lanz.
89 *Operative Treatment of Ascites with Cirrhosis of the Liver. N. F. Bogojawlensky.
90 Advantages of Sterilization of Catgut in Vaselin. Lerat.

89. **Operative Treatment of Ascites with Cirrhosis of the Liver.**—The benefit of the Talma operation for Banti's disease is ascribed by Bogojawlensky to the laparotomy *and* the resulting hyperemia rather than to the omentopexy. The latter helps, but the hyperemia from the laparotomy is the main factor, as he has determined in the course of ten such cases. In operating he aims to induce hyperemia as *much* as possible and to remove all trace of the ascites. If the kidneys are functioning defectively, absorption of ascitic fluid left behind may prove fatal. He knows of two such deaths and warns that pronounced kidney disease contraindicates the operation and that in all cases the general anesthesia should be as slight as possible.

Zentralblatt für Gynäkologie, Leipsic

February 27, XXXIII, No. 9, pp. 297-328

91 Treatment of Suppurative Processes with Antiferment Serum. (Behandlung eitriger Prozesse mit antifermenthaltigem Serum.) A. Fuchs.
92 Scopolamin Does not Influence Pulse and Temperature. G. Blisniansky.

Policlinico, Rome

February 21, XVI, Practical Section, No. 8, pp. 229-260

93 *Intravenous Injection of Bichlorid of Mercury in Acute Inflammatory Rheumatism. (Le iniezioni endovenose di sublimato corrosivo nella poliartrite reumatica.) O. Ortali.

February 28, No. 9, pp. 261-292

94 *Theobromin in Angina Pectoris. (Intorno l'angina pectoris e specialmente in rapporto alla sua cura.) E. Marchiafava

93. **Intravenous Mercurial Treatment in Acute Rheumatism.**—Ortali found that the patients were not improving under salicylates in the three cases reported, and he then made an intravenous injection of 5 mg. of mercuric chlorid, repeated on the two following days, with the rapid recovery of the patients. In one case he made five injections, using 10 mg. for the later ones. The results were excellent in all; the temperature and swellings subsided, the patients felt very much relieved, and the pains became attenuated. There were no by-effects in any instance.

94. **Angina Pectoris.**—Marchiafava has obtained good results from theobromin in angina pectoris. In one case a man of 46 had been suffering for two months from repeated attacks of angina pectoris, recurring so constantly that he did not dare to go to bed; the attacks only lasted a few minutes, but had already induced great debility and distress. Examination revealed insufficiency of the aortic valve. He was given 0.5 gm. (7.5 grains) of theobromin, and the dose was repeated at bedtime. There were no further attacks then or later. The treatment with theobromin must be long kept up, for months and years. It is effectual in other disturbances from arteriosclerosis as well. Two of his patients recently had vertigo and were afraid to venture into the street on foot, but have been free from the vertigo since they have commenced taking theobromin.

Riforma Medica, Naples

February 22, XXV, No. 8, pp. 197-224

95 *Tests of Kidney Functioning. (Della diagnosi funzionale del rene.) G. Zagari.

95. **Functional Tests of the Kidneys.**—Zagari has been applying a number of functional tests in several cases of kidney disease, with healthy persons as controls, and tabulates the findings. The test diet contained 5 gm. of salt; on this, in health, from 1 to 1.18 per cent. of sodium chlorid was eliminated, the elimination reaching its maximum the third or fourth hour, and nearly ceasing by the sixth hour. In nephritis, on the other hand, the maximum seldom reached 0.9 per cent. and never surpassed it; in most cases not going above 0.7 or 0.8. The total in 470 gm. of urine was 5.248 salt with one average healthy person, while in nephritis, with 375 gm. urine, only 2.735 salt was eliminated in the same period of six hours. He regards this sodium chlorid test as the easiest, simplest and most reliable means of estimating the functional capacity of the kidneys. Diuresis follows with healthy kidneys or in cases of compensated kidney disease, but there is no diuresis with nephritis. The elimination of salt begins much later and is much less pronounced with diseased kidneys, and this characteristic response to ingestion of salt may reveal incipient trouble not discoverable by any other means.

Hospitalstidende, Copenhagen

January 13, LII, No. 2, pp. 33-56

96 *Diagnosis of Erysipelas. Sørensen. Commenced in No. 1.

January 20, No. 3, pp. 57-88

97 *Serodiagnosis of Congenital Syphilis. (Wassermann-Reaktionen ved medfødt Syfilis.) O. Thomsen and H. Boas.

January 27, No. 4, pp. 89-120

98 *Lung Suction Mask in Pulmonary Tuberculosis. (Om Behandling af Lungetuberkulose med Blodoverfyldning af Lungevævet.) L. Melchior.

February 3, No. 5, pp. 121-152

99 Sympathetic Ophthalmia. (Nogle Betragtninger over den sympatiske Uveitis' Væsen i Anledning af et ejendommeligt Tilfælde.) C. F. Heerfodt. Commenced in No. 4.

February 10, No. 6, pp. 153-176

100 *Dislocation of the Semilunar Bone of the Wrist. (Luxatio ossis lunati dorsalis.) J. Ipsen.
101 *Periarthritis. P. Lorenzen. Commenced in No. 5.

96. **Diagnosis of Erysipelas.**—Sørensen reviews his experience with about a thousand cases of erysipelas, remarking that in over one-fourth of the number the affection was not recognized. He insists on the necessity for bearing in mind that pure erysipelas is a mild, serous and not a *suppurative* or destructive process, and that the patients should be protected against infection with other germs liable to superpose suppuration and necrosis on the erysipelatous process. The

patients should especially be kept from contact with phlegmons.

97. **Serodiagnosis of Congenital Syphilis.**—Thomsen and Boas applied the Wassermann test to 9 infants under 6 months old with unmistakable signs of congenital syphilis, and the response was positive in all They also applied it in 4 young people between 13 and 20, with signs of inherited tardy syphilis, and the response was positive in all. In a third group the test was applied to 32 infants and their syphilitic mothers. In 3 of these cases the mothers showed no signs of syphilis but bore children with the taint. Sixteen of the 19 mothers of unmistakably syphilitic infants gave a positive response and 2 of the others had had a recent course of mercurial treatment; 9 of the 13 mothers with healthy children also reacted. The blood from the umbilical cord presented the typical reaction in one case in which the mother had been infected with syphilis twelve years before and had taken two courses of 48 and 33 inunctions and had not observed the slightest manifestation of the disease during the last ten or eleven years and bore no traces of the infection She had borne four healthy children since her infection and this latest infant seemed to be healthy at birth but at the age of three weeks developed syphilids. The Wassermann reaction was particularly pronounced in the woman's blood in this case, suggesting possible reinfection, but nothing could be discovered to sustain this assumption. In every case in which anatomic changes were found in the umbilical cord, the children developed signs of syphilis sooner or later. Examination of the cord or placenta is thus shown to be a useful supplementary test for inherited syphilis A positive response to the Wassermann test in the mother reduces the probability of the child being sound The reaction seems to be constant in every case of clinical manifestations of syphilis in infants or older children. The authors believe that it is possible for the substances inducing the reaction to pass through the placenta into the fetus and permit a positive reaction when in reality the child is free from the disease. Every mother of a child giving a positive response to the test should be regarded as syphilitic, although free from signs of the infection. Examination of the placenta blood from numbers of healthy children never once gave a positive response.

98 ***Suction Mask in Treatment of Pulmonary Tuberculosis.***—Melchior reports that only one of the eleven consumptives treated with the suction mask seemed to be much benefited by it. The patients were all in the second or third stage of the disease; the number of red corpuscles seemed to be increased, yet the hemoglobin percentage did not keep pace with it. The vital capacity seemed also to be increased, transiently at least. The patient who derived the most benefit was the only one in whom the disease had not reached the second stage.

100. **Dislocation of the Semilunar Bone.**—Ipsen's patient was a young man with dislocation resulting from an accident. The disturbances were so severe that he was unable to use his hand and, after failure of persevering conservative measures, Ipsen removed the semilunar bone as the dislocation constantly recurred after reduction This put an end to the disturbances at once without impairment of function.

101. **Periarthritis.**—Lorenzen discusses the various types of periarthritis, remarking that no joint affection heals without leaving some trace of its presence in the surrounding tissues. These various forms of *periarthritis* frequently are disregarded or explained as growing pains He describes in detail some typical cases of periarthritis involving the shoulder, knee, back of the neck or foot, and remarks that the local measures must be supplemented by general treatment to be really effectual Whether water, heat, electricity or mechanical devices should be used in local treatment depends on the special skill of the physician in each line and the patient's confidence in the special treatment or combination of measures. Operative intervention is rarely necessary and should be reserved for the severest cases His experience has shown that excellent and durable results can be obtained without it.

Hygiea, Stockholm

January, LXXI, No 1, pp 1 96

102 *Operability of Tumors in the Posterior Cranial Fossa (I hvilken grad aro svulster i fossa cranii posterior tillgangliga for operation ?) K Dahlgren
103 Treatment of Gonorrhea (Ett bidrag till behandlingen af gonorré i lifmodern) C. Cronquist

102. **Operability of Tumors in Posterior Cranial Fossa.**—Dahlgren concludes from his study of the literature and personal experience with four cases that the prospects of complete recovery are very small with tumors at the base of the brain, but that transient or durable improvement has been observed so often after operative treatment that an attempt is amply justified in this otherwise hopeless condition He reviews a number of minor points which facilitate the diagnosis, urging the publication of series of cases from the same clinic or from the same operator as much more instructive than compilation of single cases from various quarters which scarcely permit of comparison.

Books Received

All books received are acknowledged in this column and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender A selection will be made for review in the interests of our readers and as space permits.

FRÜHDIAGNOSE UND TUBERKULOSE-IMMUNITAT, unter Berucksichtigung der Neuesten Forschungen Konjunktival und Kutan Reaktion, Opsonine, etc, Speziell der Therapie und Prognose der Tuberkulose Von A Wolff Eisner, Berlin, Arzt f innere Krankheiten u Bakteriologie des stadt allgemeinen Krankenhauses Friedrichshain Berlin Edition 2 Paper Pp 378, with illustrations Price, 12 marks Wurzburg Curt Kabitzsch (A Stuber s Verlag), 1909

A SYSTEM OF MEDICINE Vol 4 Parts 1 and 2 By Many Writers Edited by Sir Clifford Allbutt, K C B, M A, M D, LL D, D Sc, F R C P, F R S, F L S, F S A, Regius Professor of Physic in the University of Cambridge and Humphry Davy Rolleston, M A, M D, F R C P, Senior Physician, St George s Hospital, Cambridge Cloth Price, $3 per volume New York: The Macmillan Co, 1908

A FIRST STUDY OF THE INHERITANCE OF VISION AND OF THE RELATIVE INFLUENCE OF HEREDITY AND ENVIRONMENT ON SIGHT Eugenics Laboratory Memoirs V By Amy Barrington, of the Galton Eugenics Laboratory, and Karl Pearson, F R S Paper Pp 61. Price, 4 shillings London Dulau & Co, 37 Soho Sq W, 1909

CLINICAL DIAGRAMS Designed for the Graphic Representation of Clinical Phenomena for Preservation with the Notes of Cases By James C Wilson, M D, Physician to the Hospital of the Jefferson Medical College Paper. Twenty five sets, 50 cents Philadelphia. J B Lippincott Co

A SYSTEM OF OPERATIVE SURGERY By Various Authors Edited by F F Burghard, M S, F R C S, Teacher of Operative Surgery in King s College, London In Four Volumes Vol 1 Cloth Pp 751, with illustrations Price, $10. New York: Oxford University Press, 1909

STUDIES ON THYROID—1 THE RELATION OF IODIN TO THE PHYSIOLOGIC ACTIVITY OF THYROID PREPARATIONS By Reid Hunt and Atherton Seidell Hygienic Laboratory—Bulletin No 47, October, 1908 Paper Pp 115 Washington Government Printing Office, 1909

MEDICINE IN ABSTRACT By Henry P Kohberger, Ph B, M D, Associate Professor of Medicine and Director of Clinical Laboratory, University of Pittsburg Flexible Leather Pp 218 Price, $1 Pittsburg Medical Abstract Pub Co, 219 Sixth street.

THE HOLDEN SYSTEM OF CARD RECORDS A series of printed cards for filling out systematic card records including all data of history, examination, treatment, charges etc Adjustable, expansible, transportable, consultable Yonkers, N Y The Holden System

A MANUAL OF OPERATIVE SURGERY By H J Waring, M S, M B, B Sc, F R C S, Senior Assistant Surgeon St Bartholomew's Hospital Edition 3 Cloth Pp 750, with illustrations. Price, $3 75 New York Oxford University Press 1909

MOVABLE KIDNEY By C W Suckling, M D, M R C.P, Consulting Physician to the Queen s, to the Children's and to the Orthopedic and Spinal Hospitals Cloth Pp 155 Birmingham: Cornish Brothers, 37 New street, 1909

ANNUAL REPORT OF THE HEALTH DEPARTMENT OF THE CITY OF RICHMOND, VA, 1908 Paper Pp 113

PROCEEDINGS OF THE NINETEENTH CONVENTION OF THE BALTIMORE & OHIO ASSOCIATION OF RAILWAY SURGEONS, 1908 Paper Pp 118

REPORTS OF THE TRUSTEES [illegible] OF THE BUTLER HOSPITAL Presented to the [illegible] xty-Fifth Annual Meeting, Jan 27 1909, Provic [illegible] 'p 52

MORTALITY STATISTICS—1907 EIGHTH ANNUAL REPORT Department of Commerce and Labor, Bureau of the Census Cloth Pp 538 Washington Government Printing Office 1909.

REPORT OF THE COMMISSIONER OF EDUCATION, 1908 Vol 1 Cloth Pp 382 Washington Government Printing Office, 1908

THE JOHN CRERAR LIBRARY, FOURTEENTH ANNUAL REPORT, 1908 Paper. Pp 12 Chicago

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Original Articles

THE SUPPRESSION OF A CHOLERA EPIDEMIC IN MANILA

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MANILA

The cholera epidemic of September, 1908, was probably a continuation of the outbreak which had its greatest intensity in January, 1908.

In January, 1908, there were 184 cases of cholera in Manila. In February, 14 cases of cholera were registered, and in March, 3 cases were registered. In April cases resembling cholera clinically began to present themselves, which bacteriologically were negative. On May 14, 1 case bacteriologically positive was reported. June 11, 1 case of true cholera was found, and suspicious cases, resembling cholera clinically but negative bacteriologically, were found on June 3, 4, 18, 19, 24 (2 cases), 27, 28 and 29. These cases resembled the true clinical picture of cholera more closely from day to day. Some were fatal in a few hours, and the intestinal contents yielded a motile vibrio which resembled the cholera vibrio but did not respond to the agglutination test. These suspicious cases, negative bacteriologically, continued in July as follows: July 4, 8, 11, 13, and 14, 1 case each.

On July 16 a case of typical cholera was found, and thereafter cases of true cholera appeared in July as follows: July 21 and 22, 1 case each; July 26, 2 cases; July 28, 4 cases; July 29, 3 cases; July 30, 4 cases; July 31, 2 cases.

In August cases of cholera, bacteriologically confirmed, were as follows:

August 1	2	August 20	1
August 2	1	August 21	1
August 3	2	August 23	3
August 5	1	August 24	4
August 6	4	August 25	2
August 7	1	August 26	3
August 8	2	August 27	6
August 9	2	August 28	1
August 10	2	August 29	2
August 13	3	August 30	5
August 17	1	August 31	5
August 19	1		

These suspicious cases bridged over a gap between the outbreak of January, 1908, and that of September, 1908. One need only see these cases at the bedside or at the autopsy to recognize the possibility that they may be cases of cholera in which the vibrio has lost some of its properties, including its agglutinability with high dilutions of anti-cholera serum.

Kolle,[1] in a series of vibrios taken from cases in Egypt, which clinically were cholera, found only a few vibrios which did not agglutinate with anticholera serum; Kolle's conclusion was that these were cases of cholera, but that, because of faulty technic, the cholera organism was not isolated. His contention is that other vibrios are sometimes found in the human intestines which, in the enriching fluid, grow more vigorously than the cholera vibrios, and one may easily fail to isolate the cholera organisms. This seems unlikely to occur in any considerable number of cases, especially if the transfer to the hard media is made direct from the stool or after a very short time of growth in the peptone solution.

From September 1 to 9 there was an average of about three cases daily. On the 10th the cases reached 7, on the 11th 9, and on the 12th 17. The course of the disease is well displayed on the chart (Fig. 2), and on the accompanying table, showing the cases from Sept. 1 to Oct. 12, 1908:

September 1	3	September 23	45
September 2	1	September 24	40
September 4	6	September 25	44
September 5	4	September 26	37
September 6	4	September 27	14
September 7	4	September 28	18
September 8	5	September 29	13
September 9	3	September 30	11
September 10	7	October 1	12
September 11	9	October 2	10
September 12	17	October 3	5
September 13	11	October 4	9
September 14	10	October 5	11
September 15	16	October 6	6
September 16	37	October 7	8
September 17	25	October 8	13
September 18	24	October 9	8
September 19	43	October 10	6
September 20	60	October 11	3
September 21	55	October 12	4
September 22	38		

The high-water mark of the epidemic was reached on September 20, when 60 cases were reported in twenty-four hours.

When the number of cases reached 9 on September 11, I recognized the probability of an epidemic and took personal charge of the operations. On September 12 the number reached 17, 12 being in Meisic district. On investigating this district I found that in 18 cholera houses, that is, houses in which cases of cholera had occurred, in every case the closet was in a filthy condition. The following combination occurred: filthy closets, rats, flies, cockroaches, and other insects, and a kitchen immediately adjoining the closet; with which all that was necessary to produce the disease was the presence of the bacillus-carrier, who, by using the closet, would furnish the infective material.

Two additional disinfecting squads were put to work immediately for the exclusive duty of disinfecting closets, and on September 13 the cases dropped to 100, and on September 14 to 10. On September 15, 16 cases occurred, and 105 additional men were employed. This force was increased as rapidly as possible without causing confusion and disorganization, and by September 22 the complete organization of 500 men was working smoothly. This force was increased by September 25 to 600 men.

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[1] Ztschr. f. Hyg., xliv.

ORGANIZATION

The Property Division of the Bureau of Health purchased all supplies and equipment, with a very slight increase of personnel. The Statistical Division of the Bureau of Health took care of the records and statistics. The Clerical Division handled all financial transactions and current business. The Department of Sanitation and Transportation of the City of Manila furnished ambulances, tank wagons, carretelas, carromatas, and horses.

The boundaries of the health districts already existing were left unchanged, the city being divided as follows:

Station J.—Intramuros, including Malate and Ermita.
Station L.—Paco, including Santa Ana, Pandacan, etc.
Station A.—Meisic, including Binondo, Quiapo and Santa Cruz.
Station C.—Tondo.
Station I.—Sampaloc.

The office force of each station was not increased, but the field force was enormously increased.

The organization of the field force was as follows, that of Station A, Meisic District, being given in detail by way of illustration:

Station A.—Meisic District

1 medical inspector, in charge of district.
3 municipal physicians, assistants to medical officer in charge.
1 sanitary inspector, in charge of all the men.
1 sanitary inspector, for inspection of disinfecting gangs and quarantines.
[illegible] merican foremen, each in charge of a lime squad.
[illegible] ino lime-throwers.
[illegible] erican foremen, each in charge of a disinfecting tank wagon and 6 men.
12 Filipinos, 6 for each disinfecting wagon.
1 chemical fire engine and crew.
1 disinfecting carretela, with crew of 5 men, disinfectants and hand pumps; for room disinfection of cholera infected houses.

TOTAL PERSONNEL OF STATION

4 medical officers.
2 sanitary inspectors.
14 foremen.
136 Filipino laborers.
5 Filipino disinfectors.
TOTAL........161

Total Personnel All Stations *

	Med. Offs.	San. Insp.	Foremen.	Laborers.	Disinfctrs.	Total.
Station A, Meisic........	4	2	14	136	5	161
Station C, Tondo........	3	1	8	86	5	103
Station I, Sampaloc.....	2	1	6	112	5	126
Station J, Intramuros...	2	2	9	117	10	140
Station L, Paco.........	2	1	4	58	5	70
Total	13	7	41	509	30	600

Lime squads varied in size according to the district. In open districts, or sparsely settled districts, one foreman could properly supervise from fifteen to twenty-five men. In a district like Meisic, where the houses are crowded together, a foreman could not properly supervise more than twelve men.

One mechanic was assigned to the duty of keeping the disinfection wagons, pumps and hose in good condition. He traveled from wagon to wagon with tools, thus avoiding sending the wagon in for repairs, which were often trivial and could be made in a few minutes on the spot.

The amount of disinfectants used was enormous, about 150,000 pounds of lime daily, and about 700 gallons of carbolic acid or its equivalent in creolin, tricresol or formalin. There was some difficulty in securing enough disinfectants to satisfy this enormous demand. The entire stock of carbolic acid, formalin and tricresol in the Philippine Islands was used before the end of September. Four thousand gallons of Jeyes fluid (a creolin preparation) were secured from Hongkong and Japan in time to prevent the wagons lying idle. Four of the eleven tank wagons might have lost two days on account of lack of disinfectants, but the director of the Bureau of Science suggested that salt water could be electrolyzed, forming a disinfecting fluid, which, according to laboratory tests, would kill cholera bacilli promptly. His offer to electrolyze the solution was accepted, and for two days four of the wagons used this fluid. In a short time all the lime in Manila and vicinity was used and the entire daily output of the kilns in the Island of Luzon was taken. The lack of lime sometimes caused the cessation of lime disinfection at 3 or 4 o'clock in the afternoon, but lime squads were equipped with shovels, hoes, rakes, brooms or other cleaning instruments, and their spare time was utilized in digging ditches and cleaning up the yards of premises.

Infected districts were subdivided into subdistricts; maps were made of these subdistricts, and the foreman in charge of a disinfecting wagon or lime squad was furnished with a map of his subdistrict.

The ordinary chemical fire engine makes an excellent disinfecting apparatus. The eighty-gallon tanks are charged with carbon dioxid produced from bicarbonate of soda and sulphuric acid; to make an efficient disinfecting solution it is only necessary to add carbolic acid, creolin or other disinfectant to this solution. The ordinary street-sprinkling wagon is convertible into an excellent apparatus. All that is necessary is to install an ordinary pressure pump and several hundred feet of hose, put in the disinfectant, and fill the tank from the street hydrant. We used eleven of these wagons and four chemical engines, and they were all effective. The tank wagon possessed the advantage of being cheaper, as the cost of soda and sulphuric acid for charging the chemical engine is not inconsiderable. In Manila the cost was offset by the fact that we received the services of the chemical engine crew free of charge.

Several kinds of disinfectants were used in the tank wagons. Crystal carbolic acid does not mix readily and requires careful handling when used on a large scale. Formalin is good but causes a great deal of complaint from the people because of its irritating properties. Crude carbolic acid, in our experience, did not mix well, and from both kinds of carbolic acid, because of irregular distribution in the solution, minor accidents occurred, as burning of the hands and feet of the laborers, and killing of dogs and chickens. The most satisfactory disinfectant was Jeyes fluid. It is nearly fireproof and is very effective. It mixes perfectly with water, forming a milky solution of uniform strength. It does not burn the hands or feet of the laborers or children about the house, and no ill effects on animals or chickens were noticed.

The simplest and most effective way to use lime is with a bucket and a ladle. The lime gang of from fifteen to twenty-[illegible] was ha[illegible] one white fore-

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* This does not include police for house-to-house inspection, nor some 300 men of the city street cleaning force, who have been assisting in draining the worst places in the barrios, nor the constabulary for quarantine guards.

man and one native *capatas*. Each gang was followed by a cart with lime. Each native lime-thrower carried a bucket and scoop or ladle. After a little patient instruction, the natives learned to use the lime to the best advantage, to place it where it was needed, and to avoid the spots where it was unnecessary. Their instructions were definite and included liming all closets and places where fecal matter existed or was likely to be deposited.

Each chemical engine was handled by its own crew in charge of a lieutenant of the fire department.

Each tank wagon was in charge of an American foreman, who directed the disinfection, was responsible for the thoroughness of the work and for the conduct of the six natives who manned the pump and hose.

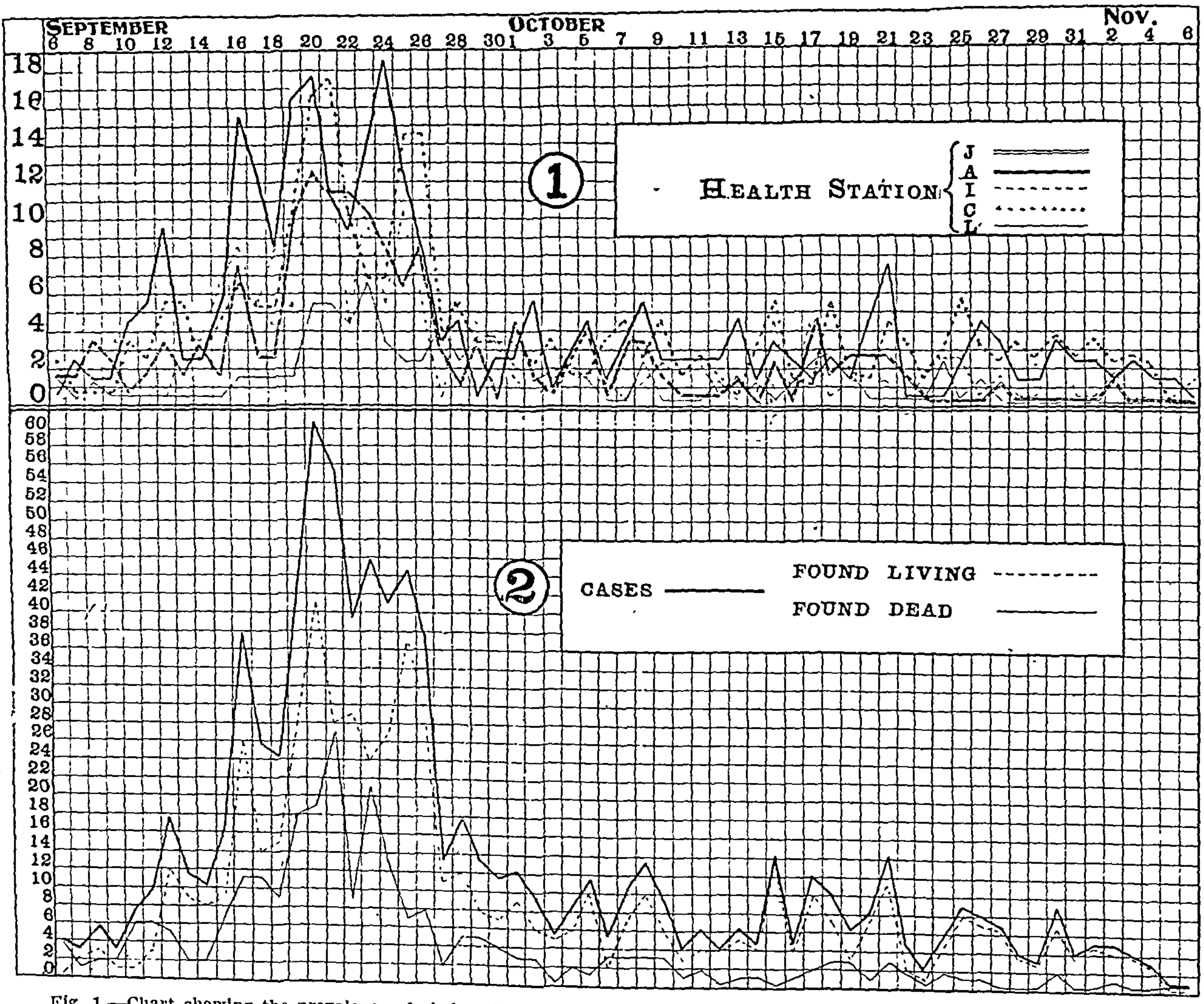

Fig. 1.—Chart showing the prevalence of cholera in Manila from Sept. 6 to Nov. 6, 1908. The spread of infection by districts: Station J, Intramuros, including Malate and Ermita; Station A, Meisic, including Binondo, Quiapo and Santa Cruz; Station I, Sampaloc; Station C, Tondo; Station L, Paco, including Santa Ana, Pandacan, etc.
Fig. 2.—Chart showing the number of cases found daily.

In giving foremen their instructions great stress was laid on the necessity of displaying courtesy at all times. They were instructed to take part in no argument with householders or others, and to do their work with consideration for the feelings of the people, but none the less thoroughly. If actual obstructions were encountered they were to notify the central office at once. The result of these instructions was that during the whole campaign the valid complaints were less than a dozen. All complaints were promptly investigated by the acting director of health, and if found valid the foreman in charge was dismissed. Only one case of actual obstruction was encountered; the man in question refused to permit the disinfectors to enter: he was arrested, fined 50 pesos, and no further trouble occurred.

The organization was mobile, and concentration of disinfecting wagons from Paco, Intramuros and Sampaloc, as a reinforcement of Meisic and Tondo, was effected when necessary, with good results.

The general plan of campaign was as follows:

House-to-house inspection by police to discover promptly cases of cholera.

Constabulary guard on house and inmates to prevent ingress and egress until removal of the patient and disinfection of the house.

Examination of the stools of cholera contacts to find bacillus-carriers, the bacillus-carriers being sent to San Lazaro Hospital for treatment.

Daily disinfection of all insanitary closets with lime, and disinfection of ground surfaces known to be or suspected of being, soiled with fecal matter.

An attempt was made to disinfect daily all closets in the strong material districts which were not flush closets or which were not kept clean. In the light material districts the effort to disinfect the dejections of the entire population necessitated the disinfection of entire districts. It was necessary to disinfect practically the whole ground area. When one considers the enormous area to be covered daily in Tondo, Sampaloc, Malate and Paco, with their outlying barrios, and the fact that there are over 5,000 insanitary closets in the Meisic district alone, the magnitude of this work may be imagined.

Two general methods of disinfecting were employed: (1) the spreading of lime; (2) disinfection with water wagons, hose and pump, or by chemical engines containing carbolic acid, creolin, formalin or other disinfecting material.

Lime was effective in conjunction with drainage in the low-lying, swampy nipa districts, and also for disinfecting the bad closets in the strong material districts. The tank wagons and chemical engines were used for general disinfection of lower floors, outhouses, patios, stables and closets in both strong and light material districts.

My experience in the recent epidemic points to the fact that the most important rôle in the transmission of cholera is played by the bacillus-carrier.

If a bacillus-carrier be a person of cleanly habits, and if he can and does make use of proper closet facilities, he is practically harmless. But, on the other hand, a bacillus-carrier of filthy habits, who has no closet facilities, or refuses to avail himself of the public closets furnished him, is the greatest menace to the public health which can possibly exist, so far as cholera is concerned. The demonstration of the fact that over 7 per cent. of apparently healthy individuals in the Meisic and Tondo districts were bacillus-carriers, coupled with the insanitary closets of Meisic district and the absence or failure to use public closets in the nipa districts, will go far toward explaining the dissemination of cholera in Manila this year.

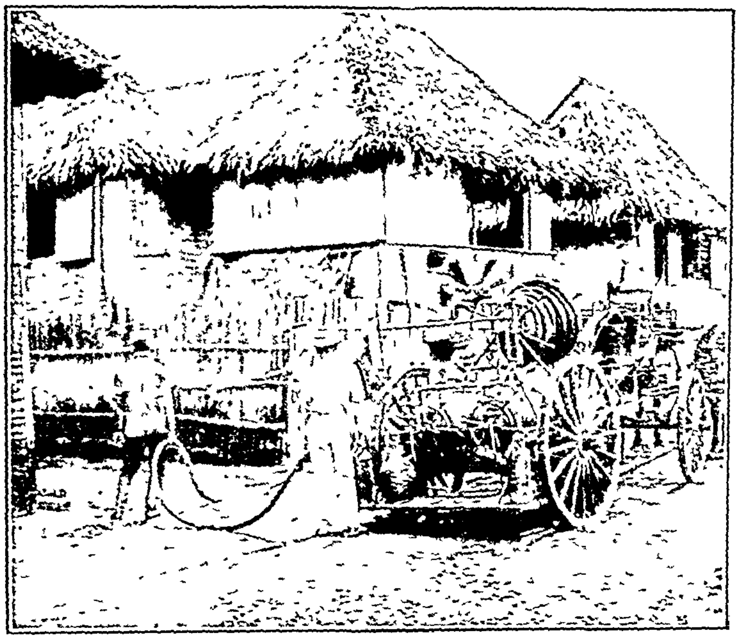

Fig. 3.—Chemical fire engine converted into disinfecting apparatus.

Every effort was made to discover promptly light cases of the disease and bacillus-carriers. When a case of cholera was found the house was quarantined until the removal of the patient and the completion of the disinfection. The stools of the other inmates were taken for the purpose of discovering bacillus-carriers. These, if found, were sent to the San Lazaro Hospital and there detained until the vibrios disappeared from their stools. A house-to-house inspection was made of a large area, having the infected house for a center. This was done daily for five days.

The following tables show the number of apparently healthy persons examined for cholera bacilli and the number who were really carrying the bacilli:

BILIBID PRISON

Number of persons examined	264
Number found positive	17
Percentage found positive	6.44

CITY OF MANILA

(Exclusive of all hospitals and Bilibid Prison)

Number of persons examined	376
Number found positive	27
Number found negative but containing vibrios other than cholera	46
Percentage found positive	7.18
Percentage found negative but containing other vibrios than cholera	12.23

Even with perfect daily disinfection of closets and places soiled with fecal matter, all chance of infection from bacillus-carriers is not cut off, because a bacillus-carrier with soiled fingers may infect the food or drink of other persons.

The prohibition of certain native foods, fruits and vegetables was necessary, not only because these substances were often infected or dangerous of themselves, but they were also the substances carelessly handled by dirty people of dirty habits, many of whom were undoubtedly bacillus-carriers, and they were the substances which were eaten without sterilization by boiling or cooking after such handling.

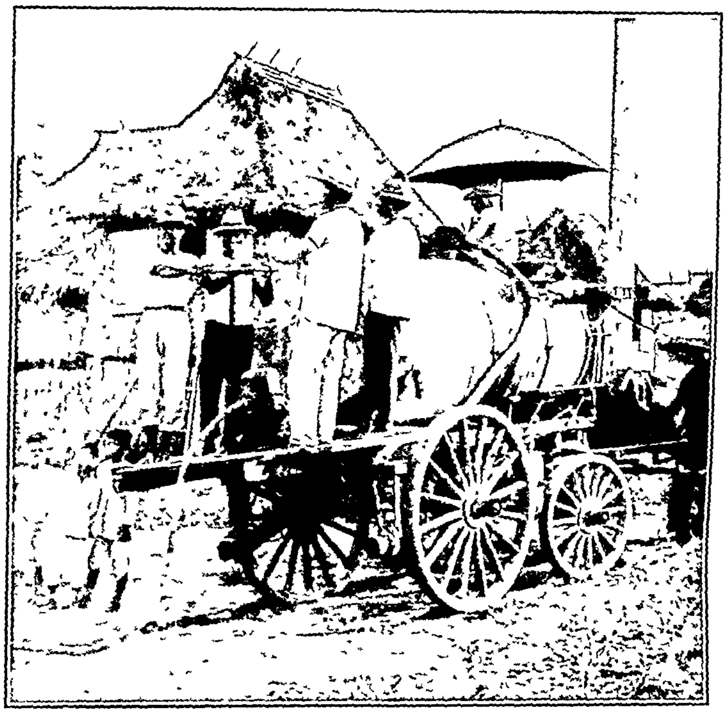

Fig. 4.—Street-sprinkler converted into a disinfecting wagon

It has been demonstrated this year that the perennial outbreaks of cholera in Bilibid Prison are probably due to bacillus-carriers. On the appearance of cholera in Bilibid Prison this year I gave orders that stools be examined for cholera of those who had anything to do with the preparation or handling of food or drink. Out of twenty-six apparently healthy persons, seventeen were carrying cholera organisms in their intestines. To find out and isolate all the other bacillus-carriers would have involved an amount of work in stool examinations alone which would have been impossible for the already overtaxed bacteriologists.

Results were obtained by an order which I issued to compel washing of the hands in disinfecting solution after stool and before eating. This order was enforced and cases ceased to appear, although there were doubtless many bacillus-carriers among the 3,000 prisoners whose stools had not been examined.

The practice of taking stools had to be discontinued when the cases increased to such an extent that it was no longer possible to do it. For the same reason the house-to-house inspection of infected areas had to be supplanted by a general house-to-house inspection of the whole city when the number of infected houses, that is, houses in which cholera had appeared within five days, reached 200.

Failure to find cases of cholera early makes the suppression of the disease difficult. Patients, even with the house-to-house inspection, are from two to twenty-four hours sick before discovery. On discovery a quarantine guard is placed on the house and inmates, and from this point that particular focus is adequately cared for, but in the hours before discovery other individuals probably have been infected.

When a Filipino falls ill all the neighbors, either through interest or curiosity, will crowd into the house. On discovery of the case, or decision of the householder or doctor to report it, these people promptly scatter, go to their meals without washing their infected hands, eat their rice with these same infected hands, and even carry with them from the infected house mats, articles of clothing, food and drink to save them from the all-destroying disinfectors. Our disinfectors try to trace out these other houses to which clothing, etc, has been carried, but it is very difficult and often impossible.

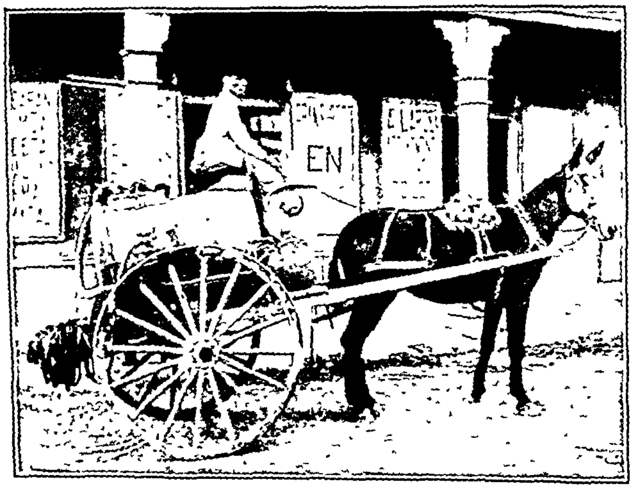

Fig. 5.—Small water wagon converted into disinfecting wagon.

To illustrate the spread of the infection in this way, the course of the disease in the Meisic District, Station A, may be taken as an example. It will be observed (Fig. 1) that every four days there is a sudden increase in the number of cases. These are the persons infected from the cases of four days previous. It does not mean an incubation of four days, for these patients when found have already been sick for some time, but it would indicate an incubation of from two to three days.

Considering a house where cholera has been found within five days as a focus, on September 23 there were 241 infected foci in the city of Manila, well scattered, as is shown by the following table:

Meisic	66
Tondo	59
Sampaloc	41
Intramuros	54
Paco	21
Total	241

With the organization and the employment of the measures outlined above, in twelve days the number of cases was reduced from 60, the maximum number in one day (September 20), to 5 cases on October 3. A few cases occurred daily throughout October, and these cases, in nearly every instance, came from well-known cholera areas, districts in which cholera persists after its eradication from the more cleanly and sanitary portions of the city.

For example, of the last 75 cases in October, one-third occurred in the district bounded by Calles Bilibid and Paz on the south, Calle Magdalena and San Lazaro on the west, the railroad on the north, and Calle Felix Huertas on the east. This district has no surface drainage, the interiors were lower than the street gutters of Calle Cerventes and the majority of the houses, during the greater part of the year, stand over collections of filthy water, slime and muck. This office demonstrated to the city authorities the feasibility of draining this area by ditches and the drainage work is now in progress.

Nine per cent. occurred in a triangle formed by Calle Ascarraga on one side, Tondo Beach on the second side, and Calle Ylaya and Calle Quesada on the third side, one of the best examples of the illegal perpetuation of the nipa shack in the strong material district. Less than 10 per cent. were found in the strong material district, and most of these could be traced to one of the above-mentioned plague spots.

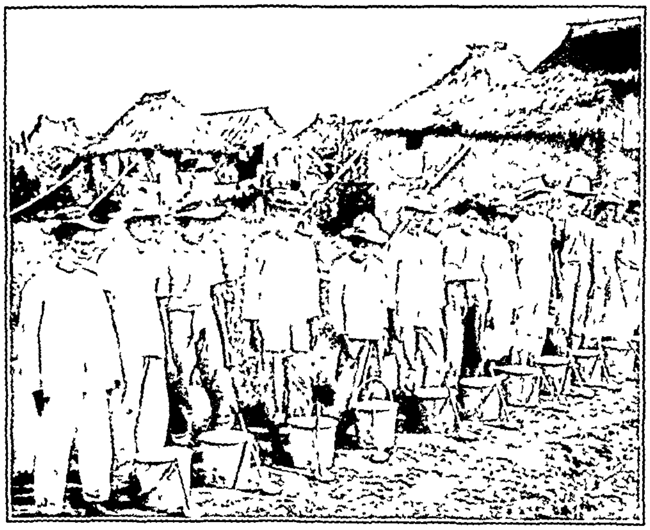

Fig 6.—Lime-throwing squad.

Cholera is the same disease, whether encountered in Germany, Russia, Italy, Egypt, India or the Philippines, but the measures taken to prevent its spread and to suppress the infection depends on the geographical location of the epidemic. To suppress a cholera epidemic in a country like Germany, for example, it is a comparatively simple proposition, while in the Philippines its suppression is complicated by existing conditions peculiar to these islands.

Four things are of prime importance for the suppression of cholera: (1) a good water supply for all the people; (2) safe disposal of the defecations of the entire population; (3) prompt discovery of cholera cases, suspects or bacillus-carriers, with immediate isolation and disinfection; and (4) habits of cleanliness.

If the water supply is free from cholera and can be kept so, then the spread of the epidemic depends on the enormous area to be covered daily in Tondo, Sampaloc, Malate and Paco, with their outlying barrios, and the fact that there are over 5,000 insanitary closets in the Meisic district alone, the magnitude of this work may be imagined.

Two general methods of disinfecting were employed: (1) the spreading of lime; (2) disinfection with water wagons, hose and pump, or by chemical engines containing carbolic acid, creolin, formalin or other disinfecting material.

Lime was effective in conjunction with drainage in the low-lying, swampy nipa districts, and also for disinfecting the bad closets in the strong material districts. The tank wagons and chemical engines were used for general disinfection of lower floors, outhouses, patios, stables and closets in both strong and light material districts.

My experience in the recent epidemic points to the fact that the most important rôle in the transmission of cholera is played by the bacillus-carrier.

If a bacillus-carrier be a person of cleanly habits, and if he can and does make use of proper closet facilities, he is practically harmless. But, on the other hand, a bacillus-carrier of filthy habits, who has no closet facilities, or refuses to avail himself of the public closets furnished him, is the greatest menace to the public health which can possibly exist, so far as cholera is concerned. The demonstration of the fact that over 7 per cent. of apparently healthy individuals in the Meisic and Tondo districts were bacillus-carriers, coupled with the insanitary closets of Meisic district and the absence or failure to use public closets in the nipa districts, will go far toward explaining the dissemination of cholera in Manila this year.

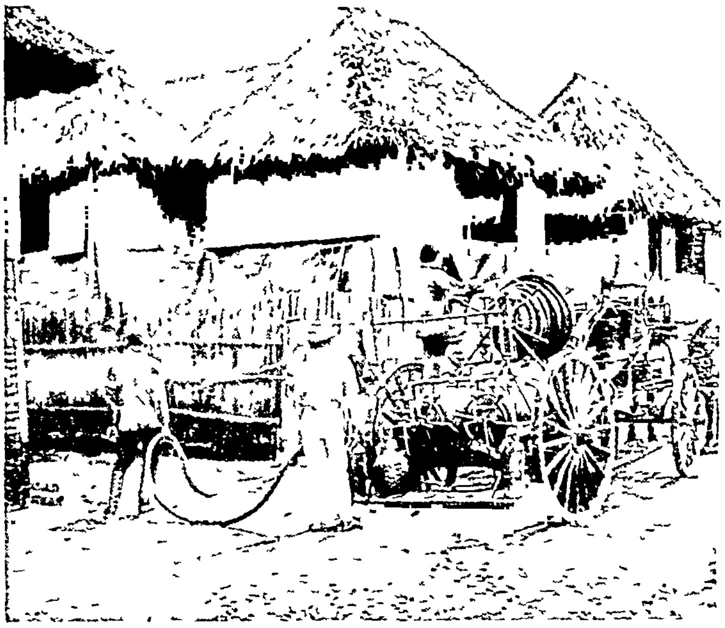

Fig. 3.—Chemical fire engine converted into disinfecting apparatus.

Every effort was made to discover promptly light cases of the disease and bacillus-carriers. When a case of cholera was found the house was quarantined until the removal of the patient and the completion of the disinfection. The stools of the other inmates were taken for the purpose of discovering bacillus-carriers. These, if found, were sent to the San Lazaro Hospital and there detained until the vibrios disappeared from their stools. A house-to-house inspection was made of a large area, having the infected house for a center. This was done daily for five days.

The following tables show the number of apparently healthy persons examined for cholera bacilli and the number who were really carrying the bacilli:

BILIBID PRISON

Number of persons examined	264
Number found positive	17
Percentage found positive	6.44

CITY OF MANILA

(Exclusive of all hospitals and Bilibid Prison)

Number of persons examined	376
Number found positive	27
Number found negative but containing vibrios other than cholera	46
Percentage found positive	7.18
Percentage found negative but containing other vibrios than cholera	12.23

Even with perfect daily disinfection of closets and places soiled with fecal matter, all chance of infection from bacillus-carriers is not cut off, because a bacillus-carrier with soiled fingers may infect the food or drink of other persons.

The prohibition of certain native foods, fruits and vegetables was necessary, not only because these substances were often infected or dangerous of themselves,

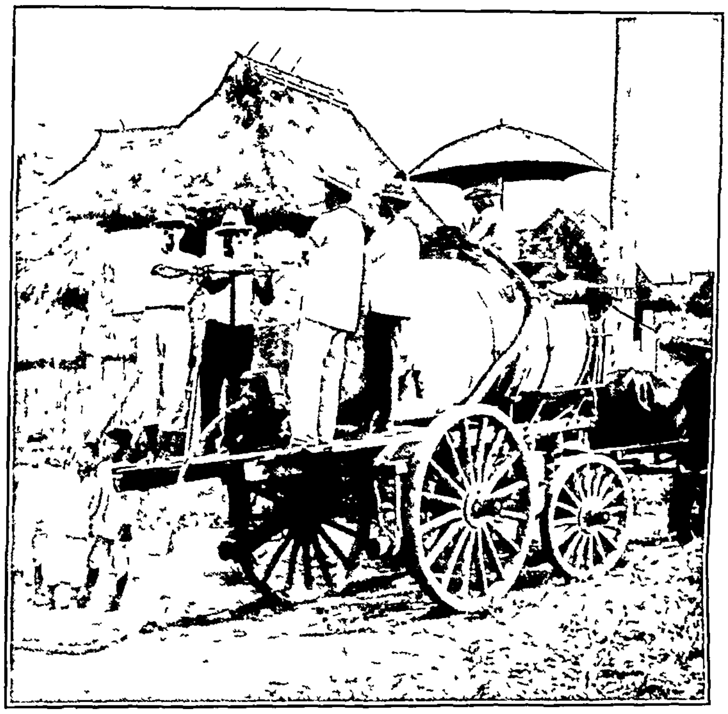

Fig. 4.—Street sprinkler converted into a disinfecting wagon.

but they were also the substances carelessly handled by dirty people of dirty habits, many of whom were undoubtedly bacillus-carriers, and they were the substances which were eaten without sterilization by boiling or cooking after such handling.

It has been demonstrated this year that the perennial outbreaks of cholera in Bilibid Prison are probably due to bacillus-carriers. On the appearance of cholera in Bilibid Prison this year I gave orders that stools be examined for cholera of those who had anything to do with the preparation or handling of food or drink. Out of twenty-six apparently healthy persons, seventeen were carrying cholera organisms in their intestines. To find out and isolate all the other bacillus-carriers would have involved an amount of work in stool examinations alone which would have been impossible for the already overtaxed bacteriologists.

Results were obtained by an order which I issued to compel washing of the hands in disinfecting solution after stool and before eating. This order was enforced and cases ceased to appear, although there were doubt-

Tanks and reservoirs must be so constructed as to preclude the possibility of contamination.

Esteros must be controlled and confined to definite beds either by adequate walls or by dredging so that any overflow land will be drained between tides.

It is essential to fill in low places which can not be drained to the proper height above the curb.

Public closets must be established in all barrios, so that every inhabitant of the city of Manila will have closet facilities at his disposal. It is advisable to have more closets even if of less seating capacity; six closets of six pails each will be of more value than three of twelve pails each, for the reason that the native has a shorter distance to travel; also the cutting of alleys through the back yards will facilitate his journey to the closet.

Before permitting land to be used for building purposes within the city limits the land should be subdivided by streets and alleys on a definite plan. The indiscriminate building of nipa shacks on the interior of a block without order or regard for necessary intervening spaces should not be permitted. Streets and alleys should be cut through already existing collections of nipa shacks and when necessary houses removed to permit proper spacing. Streets must be opened into barrios within the city limits which are now isolated and have no wagon road entering them to permit the collection of garbage and refuse.

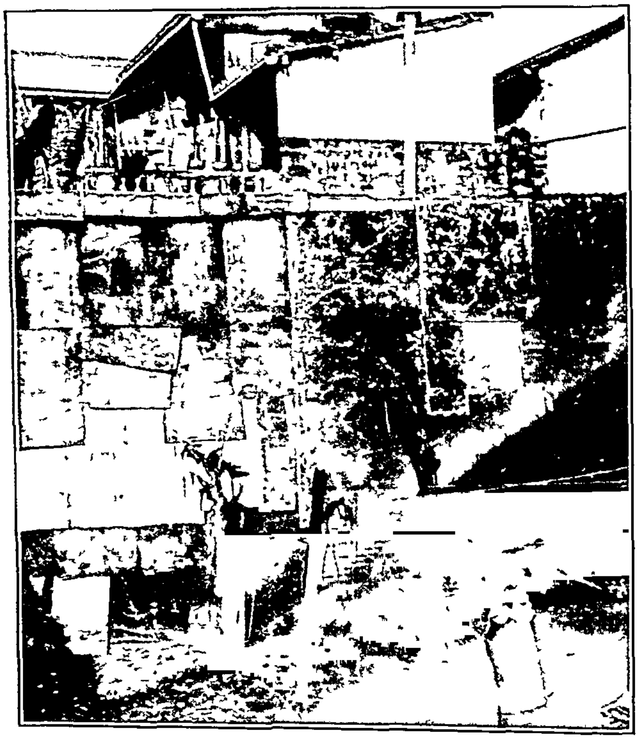

Fig 9 —Sample of construction permitted by the municipal board in the strong material district of Manila

There should be a sufficient force of sanitary police to enforce the use and sanitary maintenance of closets.

All wells must be filled in.

More stringent measures should be used to compel the prompt reporting of suspicious cases, with severe penalties for infractions of this ordinance.

Stricter enforcement of the building code is necessary in the erection of new buildings.

Nipa shacks in the strong material districts must go, and repair to old nipa shacks, which perpetuate this problem, must be prevented. These nipa districts exist by sufferance within the strong material districts, dilapidated shacks crowded together in the most insanitary manner, where there are excellent public closets, patronized only by a select few. The majority still find it easier to deposit or throw their dejecta on the swampy ground. These districts are the natural homes of cholera, and from there the people who are trying to live decently are infected by means of cooks, coachmen or other servants, who spend their spare time in these plague spots.

A proper system of surface drainage is requisite for every part of the city of Manila, where such drainage is lacking, but especially (1) the San Lazaro Estate and that portion of the city from the San Lazaro Estate to the railroad crossing on both sides of Calle Cervantes; (2) Santa Monica: (3) Antonio Riveria; (4) Palomar and Magdalena interior; (5) that portion of Tondo north of Moriones and west of Estero de la Reina; (5) Malate district, bounded by Herran, Wright, San Andres and Nueva.

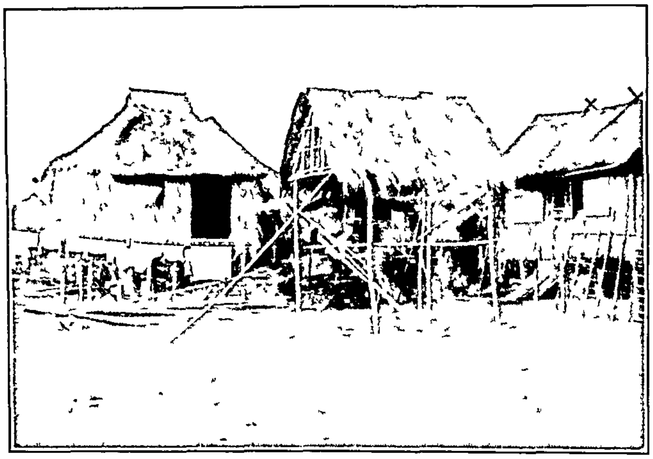

Fig 10 —New light material construction permitted by the municipal board in strong material districts

SYPHILIS OF THE STOMACH *

ARTHUR CURTIS, M.D.

CHICAGO

Syphilis of the stomach is of considerable pathologic interest because it is rarely diagnosed. Although the affection is infrequent, the value of recognizing its presence is enhanced for clinicians by the fact that serious complications, amenable to treatment, have arisen in two out of sixteen cases thus far reported. One is the case of Fraenkel,[1] in which extensive syphilitic ulceration resulted in general peritonitis and death; the other is a perforated syphilitic ulcer of the stomach reported by Flexner.[2]

Undoubted instances of stomach syphilis have been described by the following: Chiari[3] (2 cases), Klebs[4]

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* From the Pathologic Institute of the Berlin City Hospital (Krankenhaus Friedrichshain), director, Dr Pick

[1] Fraenkel, Eugen Virchow's Arch f. Path. u. Path Anat 1899, clv, Munchener med Wchnschr, 1901.

[2] Flexner Gastric Syphilis with Report of Case of Perforating Ulcer of Stomach, Am Jour Med Sci, October, 1898

[3] Chiari Magensyphilis Festschr F R Virchow, 1891, ii 297

[4] Klebs Handbuch der Pathologischen Anatomie, 1869, i, 269

(1 case), Cornil and Ranvier[5] (1 case), Fraenkel[1] (1 case). Stolper[6] (1 case), Flexner[2] (1 case), Weichselbaum[7] (1 case), Birch-Hirschfeld[8] (4 cases), Buday[9] (1 case), Bittner (3 cases).

A summary of literature with synopsis of cases to date shows four important factors which play a part in the anatomic diagnosis.

1. Location of changes. — The seat of primary involvement is, as a rule, the submucosa, the gummatous tissue invading other coats secondarily.

2. Miliary gummata, sometimes with giant cells of the Langhans type.

3. *Spirochætæ pallidæ.* — These are not to be depended on, according to the views of both Koch and of Schmorl.[10] They are often not present in undoubted syphilis; on the other hand, Koch, using the Levaditi stain, found, in cases of undoubted carcinomata of the lung, organisms of the typical appearance of *Spirochæta pallida.*

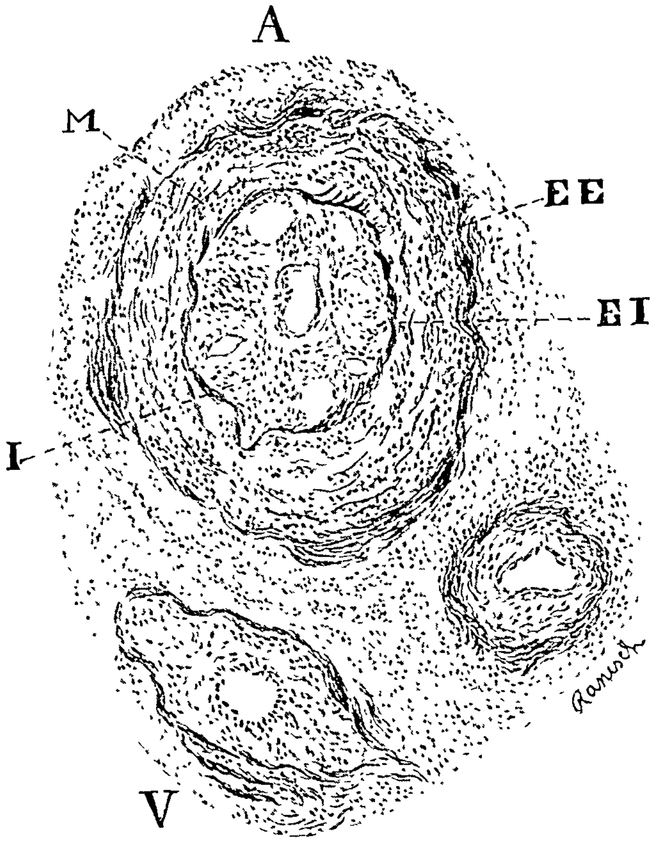

Fig. 1.—A group of three thickened blood vessels (orcein stain); A, artery; I, intima with high-grade subendothelial proliferation and cellular infiltration; in the center of the small lumen of the vessel; EI, elastica interna; M, thickened media; EE, elastica externa; V, vein correspondingly altered.

4. Peculiar vascular changes of high grade, resulting in partial occlusion or obliteration of vessels. —Cellular accumulations are found about the vessels. The latter may become thickened from cell increase, thus beginning from without, or subendothelial change may be the prominent feature. The process tends to spare many vessels entirely, while others are thickened to the point of occlusion.

Chiari,[3] with careful examination of 243 cases of syphilis, extending over a period of seven years, found only two gastric cases. The first was that of a three weeks' child with multiple syphilitic involvement. In the stomach were several flat, gummatous elevations, the majority being superficially ulcerated. Microscopically the submucosa consisted of round, oval and spindle-celled new tissue. Round cells were beautifully arranged about the vessels and invaded their walls to a limited extent. The second case was that of a man with stomach ulcer, showing an infiltrated ulcer wall and a surrounding gummatous area, chiefly situated in the submucosa. The microscopic findings were as in the previous case, except for more marked vascular changes.

Fraenkel[1] thoroughly demonstrated the almost pathognomonic changes in the blood vessels. In a case with gumma of the spleen and thirty-one syphilitic ulcers of the intestine, he found thirteen ulcerating gummata of the stomach. Encircling the veins were round, oval and spindle cells, which penetrated the vessel walls, causing a thickening of the coats with partial or complete obliteration of the lumina. In some veins existed a localized, narrowing endophlebitis, not infrequently associated with the just-mentioned cellular infiltration from without. The arterial walls were penetrated by similar granulation tissue, the degree of alteration being a lesser one. Fraenkel found similar changes in a case of intestinal syphilis.

Other authors emphasize the localization of changes in the submucosa; Stolper[6] describes a submucosa infiltration, microscopically showing large connective tissue cells, most numerous about the vessels, in which they cause frequent obliteration.

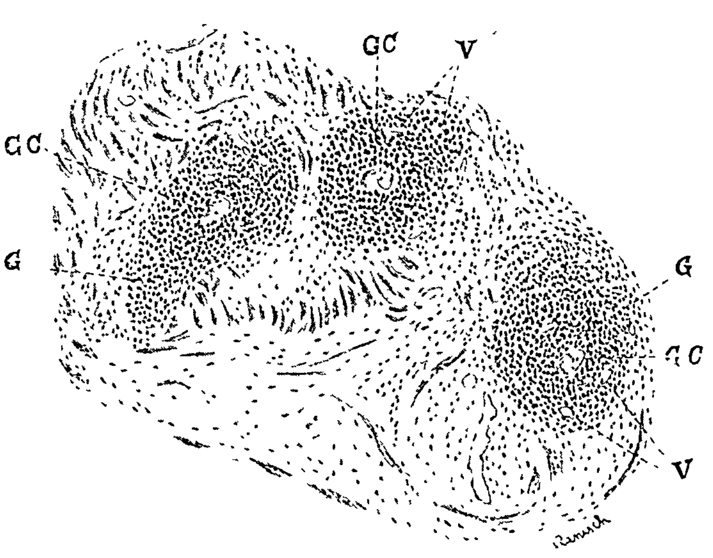

Fig. 2.—Miliary gummata imbedded in fibrous and muscle tissue; G, gumma, composed of epithelioid cells; GC, giant cells of Langhans type; V, blood vessels, found plentifully in each nodule.

Patient.—The case under present consideration is that of a woman, aged 30, who was on the surgical service, in Pavilion IX, Krankenhaus Friedrichshain, Berlin. Points of interest in the history, obtained through the kindness of the chief surgeon, Oberarzt Dr. Braun, are as follows:

History.—The patient at the time of entrance had been married twelve years and had had four apparently healthy children and one abortion. After the birth of her third child, while the patient was confined in the Charité Hospital with postpartum parametritis, a brownish-red, spot-like eruption was present on the chest. Further suggestive of possible syphilis is the fact that the patient once had complete paralysis of the right arm and leg, the trouble gradually passing away in two weeks. (At the time of obtaining the history the examining physician noted a drooping of the right side of the face and decreased power in the right hand.) Stomach trouble began one and a half years before entrance into the hospital.

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[5] Cornil and Ranvier: Manuel d'histologie pathologique, 1884, ii, 269.

[6] Stolper: Beitrag zur Syphilis visceralis, Biblioth. med., 1896, C., No. 6.

[7] Weichselbaum: Ber. d. Rudolfspitales in Wien, 1883, p. 383.

[8] Birch-Hirschfeld: Lehrbuch der pathologischen Anatomie, ii.

[9] Buday: Virchow's Arch. f. Path. u. Path. Anat., cxli, 517.

[10] Schmorl: Verhandl. d. deutsch Gesellsch., ii.

with pains after meals, at times associated with vomiting. Fourteen days before entrance one-half cup of blood was vomited.

Examination.—Physical examination showed above the navel a moderately tender, apple-sized, slightly movable tumor, distinctly separable from the liver. Dilatation of the stomach showed that the mass lay on the greater curvature. An examination of stomach contents revealed combined acid decreased, free hydrochloric acid absent, lactic acid present in small amount. A diagnosis of carcinoma was made, and operation was decided on.

Operation.—In the stomach, anteriorly, not far from the pylorus, and posteriorly near the head of the pancreas, were tough, flat, tumor-like thickenings of the wall. A gastrectomy was performed, the resected portion extending from the middle of the stomach almost to the pylorus. The excised tissue was taken to the pathologic institute, where Dr. Pick made a macroscopic diagnosis of gummata of the stomach, with beginning ulceration.

Postoperative History.—Following the operation the patient went on to uneventful recovery. Tuberculin skin and conjunctival tests, which were made during convalescence because of the unusual appearance of the excised tissue, failed to give the tuberculin reaction. Wassermann's test was unsatisfactory.

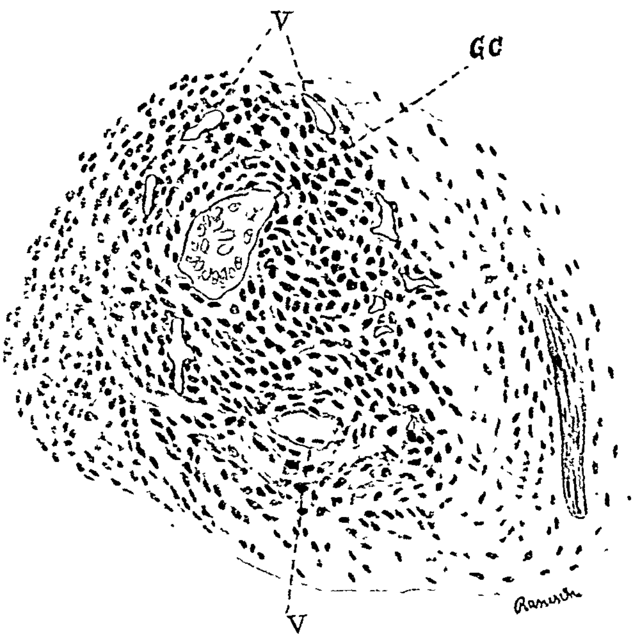

Fig. 3.—Young gumma, under high magnification, showing cell structure; V, numerous blood vessels in a stroma of epithelioid cells; there is absence of spindle cells, indicating that the process is not far advanced; GC, giant cell, with pale peripheral nuclei.

Pathologic Specimen.—The resected stomach, preserved in natural condition in Pick's solution, presented a wall which was everywhere somewhat thickened. The mucosa was mammillated, with gastric areas clearly defined and unusually prominent. On the mucous surface of the opened stomach two flat longitudinal elevations were seen. One elevation was 7 cm. in length, with average width of 2.5 cm. It was covered with an ulceration which extended through the mucosa, here and there involving the submucosa. The slightly elevated wall of the ulcer was composed of a series of confluent crescents, and was sharply defined, with vertical margin except for 1 cm. of its length along the upper border, where it was undermined. The base had a thin grayish coat, the removal of which laid bare the mottled, fatty-looking submucosa. Except at the margins the ulcer floor was elevated to the level of the uninvolved mucous membrane of the stomach. The second elevation lay parallel with and beneath the first. It rose gradually from the surrounding gastric mucosa, forming a smooth, yellowish-brown, plateau-like elevation, 6 cm. in length and 2 cm. in width, the end nearer the pylorus being capped with a small irregular ulceration. There were no tubercles associated with the ulcers, nor were they to be found on the corresponding serosa. The involved tissues, including the ulcer floor as well as the non-ulcerated elevations, had an elastic, rubber-like consistence. Incision through the thicker portions showed that the increased thickness of the stomach wall was due mostly to changes in the submucosa.

Microscopic Examination.—Specimens were stained with the following: Weigert's elastic tissue stain, hemalum and eosin, orcein, carbol fuchsin, silver nitrate and pyrogallic acid. The submucosa consisted of coarsely meshed cells, with clearly staining nuclei. It was very richly vascular and in association with the blood supply characteristic changes were manifest. There were extensive accumulations of round, oval and spindle cells, most numerous in the vicinity of blood vessels, around which they formed concentric rings, and, invading the vascular coats, greatly increased their thickness. In many veins, and in a lesser number of arteries, the lumen was entirely occluded, an orcein stain being necessary to establish the identity of the vessel. (Fig. 1.) A limited number of vessels on cross-section were free from areolæ of cells, while in the case of those longitudinally cut a part of the course might be entirely free, with the remainder surrounded by a rich cellular envelope. A subendothelial proliferation occurred in some vessels; it involved as a rule only a portion of the circumference and took place independent of cellular encroacnment from without. The richness of cell infiltration prohibited the determination of subendothelial proliferation in many blood vessels. The submucosa and that portion of the muscular coat adjacent to it contained several accumulations of epithelioid cells bearing characteristics of gummata. (Fig. 2.) They showed no tendency to necrosis, small blood vessels being numerous and distributed throughout. Giant cells with peripheral position of the nuclei (Langhans type of giant cells) were found in association, and in a few instances existed also entirely independently. Among the foreign elements were numerous eosinophiles and also a goodly number of polynuclear leucocytes. The lymph vessels were distended with round cells; lymph follicles were numerous, each supplied with easily distinguishable large capillaries. In the mucosa and muscular layers, except for the persistence of a moderate perivasculitis, and the noteworthy accumulations of epithelioid cells found near the submucosa, no changes were manifest. Stains for the *Spirochæta pallida* by Levaditi's method gave negative results. Careful search for tubercle bacilli was likewise negative.

Differential Diagnosis.—The possibilities which came into consideration were (1) simple gastric ulcer, (2) tuberculous ulcer, and (3) syphilis.

Simple gastric ulcer did not account for plate-like, noncicatricial thickening of the stomach wall, or extensive perivascular proliferation with high-grade vascular occlusion. It would, moreover, be unusual for the base of an extensive simple ulcer to be elevated to the same plane as the surrounding gastric mucosa.

Tuberculosis, although extremely rare in the stomach, was more difficult to exclude. The presence of Langhans giant cells narrowed down the diagnosis to either tuberculosis or syphilis, but did not distinguish between them. In diagnosis of the above mentioned probably gummatous accumulations of epithelioid cells, three factors opposed tuberculosis. First, there was no caseation, such as would be somewhere expected among such a relatively large number of tubercles. Second, there was no sharp demarcation from the surrounding tissues. Third, there was present in each such nodule a liberal number of small blood vessels. Such a finding as this last, in the opinion of Baumgarten, is decisive evidence that we are dealing not with tubercle, but with gumma. (Figs. 2 and 3.) Such a marked infiltration of the stomach, and the accompanying ulcer having regular and vertical walls, are not suggestive of tuberculosis. Other negative findings were the absence of reaction with skin and conjunctival tuberculin tests, lack of tubercles on the serosa, and absence of tubercle bacilli.

Syphilis accounted most logically for the gross appearance of the specimen. It was a non-malignant, tubercle-free, plateau-like tumor, with gradual gradation into normal gastric tissue. The submucosa was primarily and chiefly involved. An

Respiratory System.—The nasal and pharyngeal mucous membranes are often swollen, the tonsils enlarged, adenoids frequently present, and this locality subject to frequent infections and catarrhs. The thickening of the mucous membranes is probably of the same character as that of the skin. The voice is often husky, or raucous, or muffled, from infiltration of the vocal cords. A sense of tingling of the larynx or constriction of the throat frequently occurs. Dyspnea, brought on by exertion or talking, is an exceedingly common and characteristic symptom.

Urinary Organs and Functions—These are not materially affected, except that the lessened excretion of urea from the lowered nitrogenous katabolism may simulate renal insufficiency.

Reproductive System.—Of symptoms affecting the female sexual functions, uterine hemorrhage is most frequently observed—metrorrhagia, menorrhagia, frequent menstruation, postpartum hemorrhage—a manifestation of the general hemorrhagic tendency in this disorder. In some of the cases, however, the menses were regular and normal, or even scanty. Congestion, swelling and tenderness of the uterus, also retroflexion, have been observed; in several instances there have been uterine fibroids, in one such the tumor disappearing under thyroid therapy.

The advent of the menopause seems to be delayed. Of 13 cases affording data on this point, in 6 menstruation had ceased at ages of from 47 to 52 years, in 7 the patients were still menstruating at the ages of 43, 45, 46 (2 cases), 48, 49 and 51 years respectively. In 6 cases menstruation began at 10, 12, 13, 17 and 18 (2 cases) years.

A relationship between the female reproductive functions and the activities of the thyroid has been supposed to exist, but as to the exact nature of that relationship the evidence and opinions are not altogether harmonious.

That pregnancy and child-bearing have any influence on the development of partial myxedema is not shown by the scanty statistics available. Of 21 cases, 15 occurred in married women, 6 in unmarried. Of 12 cases in married women, 10 patients had borne children, 2 were nulliparous. Adding the unmarried to the nulliparous, 10 cases developed in women who had had children, 8 in women who had not.

The menopause is not a specially etiologic factor; 13 cases developed during the menstrual period, 3 after the menopause.

In some cases the symptoms of hypothyroidism are aggravated during pregnancy and lactation—sometimes taken to indicate a relative insufficiency of thyroid activity in this period; and some of the disorders of pregnancy—constipation, for instance—have been attributed to thyroid insufficiency at this time. In other cases, however, there is said to be relief from the symptoms (as from migraine, articular pains, etc.) during gestation, which is taken to indicate a greater stimulation of the thyroid activity under these circumstances, leading to "autotherapy." Several observers note an exacerbation of symptoms during the menstrual periods, as headaches and huskiness of the voice at these epochs. These periodical outbreaks or intermissions of hypothyroid manifestations coincident with female menstrual or reproductive epochs constitute the class of cases denominated "paroxysmal hypothyroidism."

Not all the foregoing phenomena appear in every case. The particular combinations of symptoms that occur are variable, and the diagnosis may remain obscure until illuminated by the effects of thyroid treatment.

INFANTILE PARTIAL MYXEDEMA

A distinction is made between congenital myxedema, or cretinism, developing at or within a few months after birth, and the so-called infantile form, which develops in childhood at any age prior to puberty. The cases of partial myxedema reported in children are nearly all of the infantile rather than the congenital form.

This variety of partial myxedema seems to occur more frequently in males than females, as of 27 reported cases 16 were male, 11 female. It may begin to develop at any time up to the age of puberty, the child being previously normal. The onset may follow an attack of some acute infection, as measles.

The most typical form of partial myxedema developing in childhood is that ordinarily called myxedematous infantilism, in which to attenuated symptoms of myxedema or cretinism is conjoined the condition of infantilism—by which is meant an arrest or retardation of development, so that the physical and mental characteristics of childhood persist after the ordinary age of puberty.

In this class of cases the figure is short and stunted, stout and obese; the head large; the face large, rounded or circular (the "lunar face"); the eyes well separated; the expression dull and heavy; the facies old for the age. The skin, especially about the face and hands, may be thickened and infiltrated, dry, scaly, itchy. The hair may be scanty, or fall in patches. The veins may be distended, the surface cyanotic, the hands and feet cold and affected with chilblains in winter, and with profuse perspiration in summer. Constipation occurs; the abdomen is often protruding, and with an umbilical projection. The tongue may be thickened, the mucous membranes of the respiratory passages turgid, and adenoids frequent, causing obstruction to respiration. Nocturnal incontinence of urine is often noted. Other symptoms similar to those of the adult form of partial myxedema may occur.

The mentality is sometimes unimpaired, or but slightly affected, as by some slight lowering of intelligence or persistence of childishness in thought, manners and actions. In other cases there is an arrest or retardation of mental development; the child may be tardy in learning to talk, or very backward in learning at school. Sometimes the mental development is permanently arrested, and the subjects never able to advance beyond a certain point, so that a patient over 20 may have the mentality of a child of 10. A fuller degree of mental development may, however, be ultimately, though tardily, attained.

The arrest or retardation of physical development is a conspicuous feature of myxedematous infantilism. Growth may be permanently checked, so that a subject of mature years may have the size, build and appearance of a child of the age at which the disorder appeared. If the case develops early enough the child may be very slow in learning to walk; dentition may be delayed. The epiphyseal cartilages persist long after their usual time of ossification. The voice may retain a childish quality. The hairy system may not develop.

Especially, and almost or quite invariably, is the physical retardation manifested by non-development of the sexual organs and functions. In females this is manifested by non-development of the breasts and pubic hair and retarded beginning of menstruation; or in some cases menstruation never occurs at all, even in maturity. In males the penis and testicles remain rudimentary and of infantile size throughout life, sexual power or impulse is absent, and the beard and pubic hair (secondary sexual characters) are scanty or undeveloped. Males may present a certain effeminancy of voice, appearance and character—"feminism."

Cases of myxedematous infantilism are not observed exclusively in children, but have been reported at the ages of 33, 39, 48 and 66 years, the underdevelopment, rudimentary genitals and history enabling the condition to be sharply differentiated from adult hypothyroidism.

Another definite type of infantilism is distinguished, namely, the type Lorain, described by Lorain in 1870. Opinions are divided as to the extent to which this disorder is dependent on hypothyroidism, but, judging from the improvement that takes place under thyroid therapy, thyroid insufficiency would seem to be at least partially responsible, though doubtless other factors, such as arterial hypoplasia, are also operative.

Infantilism of the type Lorain is characterized mainly by a symmetrical arrest of physical development, and is a form of nanism or dwarfism. The reported cases are nearly all in males. The specific myxedematous symptoms are absent. Men showing this defect have the size of boys, but the facial appearance and actions corresponding to their years; they are miniature or dwarfed men, and have been likened in aspect to men viewed through the reverse end of an opera glass. Genital development may or may not be relatively retarded. They have not the stocky build of cases of myxedematous infantilism, but their physique is slender.

POSTOPERATIVE PARTIAL MYXEDEMA

Of this variety of the disorder the only report which I have found is the original contribution of Reverdin,[1] in which the occurrence of partial myxedema cases was first noted. He described two cases in which symptoms resembling those of the spontaneous adult form of partial myxedema developed after thyroidectomy.

CLASSIFICATION

Attempts have been made to classify cases of thyroid insufficiency, the following being some of the classes distinguished:

Euthyria, normal thyroid activity.
Hypothyroidian temperament (*hypothyroidia minima*).
Paroxysmal hypothyroidism, associated with female sexual epochs.
Hypothyroid neurasthenia.
Physical and mental retardation of hypothyroid origin.
Myxedematous infantilism.
Incomplete myxedema of adults.
Complete myxedema and cretinism.

TREATMENT

The specific treatment of partial myxedema in all its forms consists in the administration, by mouth, of preparations of the thyroid gland. The daily dose is from 5 to 75 centigrams (1 to 12 grains) of the desiccated gland substance (from sheep), equivalent to five times as much of the fresh thyroid. The administration of thyroid substance requires caution and close observation until the proper dosage for each patient is determined by individual trial. Given in excessive doses thyroid causes unpleasant and even dangerous effects, those of hyperthyroidism, such as undue acceleration of the pulse, great prostration, headaches, sweating, restlessness. Special care is necessary in giving the drug to patients with arterial or cardiac disease, as death has occurred during treatment in such cases. At first the treatment is vigorously pushed, but after the symptoms subside only sufficient thyroid need be given to maintain the patient in optimum condition.

The treatment is highly efficient, and there is a prompt and marked subsidence of the abnormal manifestations. The excessive weight is rapidly reduced, the strength is increased, the nutrition of the skin and hair improves, the pains, constipation and dyspnea diminish, mental and physical development is advanced. Complete recovery, or at least great and highly gratifying improvement, can be confidently expected, though in some cases absolute restoration to normal is not attainable, and vestiges of the trouble may persistently continue.

DIAGNOSIS

I am speaking of diagnosis after treatment because verification or establishment of the diagnosis, especially in cases so obscure and atypical as many of those of partial myxedema are, rests on the results of thyroid therapy. A combination of the cardinal symptoms of asthenia, headache and other pains, obesity, cutaneous infiltration, lowered nutrition of skin and hair, constipation and dyspnea, also mental and physical arrest in children, may be very suggestive; yet the therapeutic test is conclusive. When only a few of the characteristic symptoms are present the diagnosis would be quite uncertain, except from the results of treatment. Whether every case, of whatsoever character, in which there is benefit from thyroid therapy is to be regarded as one of partial hypothyroidism is an open question.

Incomplete myxedema may not be a very common disorder; yet the great relief occasionally obtainable makes the trial of thyroid treatment well worth while in obscure and obstinate cases exhibiting headache, dorsal or articular pains, obesity, constipation, dyspnea, backwardness in children, etc., as conspicuous symptoms.

CASE REPORT

I have had the opportunity of observing a well-marked case of partial myxedema which illustrates a number of the typical characteristics of the disease:

Patient.—Female, unmarried, aged 53 when she first came under my observation, in November, 1905.

Family History.—There was an opportunity for paternal inheritance of syphilis, though no manifestations of congenital syphilis are known to have appeared. The maternal grandfather and six of his sisters died of tuberculosis. The maternal grandmother died at 70 of cancer of the stomach, and other cases of cancer occurred in collateral branches of her family.

Previous History.—The patient has lived in many different parts of the country. In earlier life she was a music teacher; latterly engaged in scientific pursuits. She has always been a hard student, has greatly overworked, and has been exposed to severe family troubles. She is a woman of exceptionally high mentality. Her clinical history is very voluminous. In childhood she had Asiatic cholera, whooping cough, mumps, measles, scarlatina followed by nephritis, fracture of humerus and ribs, malarial attacks, varioloid, frequent headaches, eczema capitis, frequent earaches. Menstruation began at 12. At 26 she had an attack of lung trouble regarded as incipient tuberculosis, from which she rallied in a few months. She has had repeated attacks of chronic staphylococcus infection—styes, furunculosis, repeated axillary abscesses, acne—at 12, 15, 25, 33, 48 and 54 years. She has had chronic or recurring arthritis of the left knee, which kept her in bed or on crutches for two to fifteen months at a time at the ages of 29, 34, 39 and 54. From overwork and trouble she had attacks of neurasthenia at 19, 33, 40 to 43, and more or less continuously since about her fifty-first year. She had tertian malaria at 41, and a tapeworm at 43 years. Since her fortieth year she has been subject to attacks of pain, numbness, jerking, etc., of her right foot. At 48 years she had a similar attack of pains and numbness, called "neuritis," on the ulnar side of the right arm and hand. Menstruation was always regular, rather scanty and brief (two or three days) and painless.

Her weight, so far as the data available show, ranged from 113 to 133 pounds (minus clothing) to her thirty-fifth year. She then increased to 168 pounds at 39, which was the following year reduced by dieting to 143. At 41 to 43, during one of her severe illnesses, the weight fell to 117 pounds, and afterward gradually rose again.

History of Myxedematous Condition.—It is difficult to fix the insidious beginning of the myxedematous disorder. Certain of the symptoms, however, *seem to have developed* subsequent to an attack of grip followed by what was regarded as whooping cough (the second attack), which occurred in the winter and spring of 1899-1900, just after her forty-seventh birthday. After this attack there was a marked increase of weight, which reached 172 *pounds in* November, 1900. The next year, 1901, while in the Philippines, she had dengue and hematuria (blackwater fever?). Following the cough in *1900,* she had pains in the right hypochondriac region, which continued. On June 13, 1902, an appendicectomy was done, with the idea that these pains were due to the appendix, but it was not found appreciably affected. June 25, 1902, cholecystotomy was done, and a large gallstone removed. The hypochondriac pains continued after the operation.

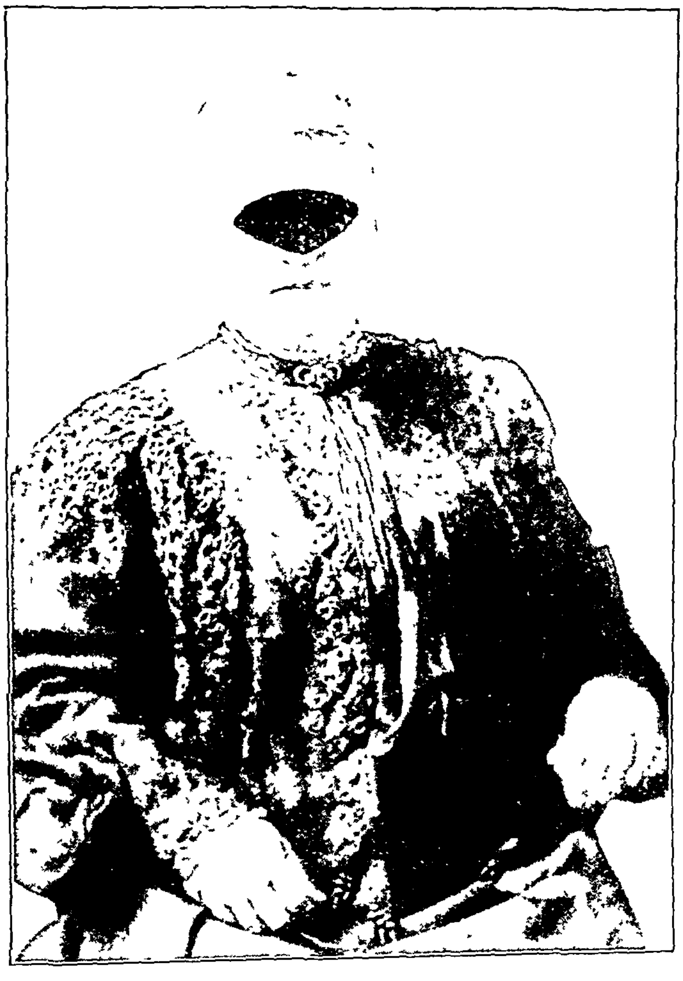

Fig. 1.—From photograph of patient with partial myxedema, taken in November, 1905, prior to the institution of thyroid treatment.

In April, 1902, the patient was told that she had Bright's *disease, the urea* excretion being stated to be much diminished, down to 4 and even 2 grams daily; casts were *at times* observed, and occasionally a trace of albumin. She was on a milk diet in 1902-04, and took meat very sparingly in 1904-05.

In July, 1902, *she had a suppurating right kidney,* with pyuria and enlargement of the kidney. In August, 1902, menstruation ceased rather abruptly (age 50).

After the operations and the cessation of menstruation in the summer of 1902 there was another gain in weight, and for a time general improvement, but neurasthenic and other symptoms continued, *and during the years 1903, 1904* and *1905* a partial myxedematous condition developed and became well established.

During this period the *patient suffered marked asthenia,* fatiguing easily on physical exertion. Her facial expression I would describe as one of placid fatigue. Mental impairment was very slight; there was some lessening of mental alertness and of continuity of thought and speech, slight forgetfulness, and easy fatigue on mental exertion; but she was at the same time engaged in intellectual and scientific work of high order. The only pains apparently referable to the hypothyroidism were the right hypochondriac pains and pains in the upper left chest. There was no headache or backache, aside from two or three attacks of lumbago, 1904-05. The patient had pains in her left knee in connection with her long-standing arthritis; also "neuritic" pains in right arm and leg, probably independent of the hypothyroid condition.

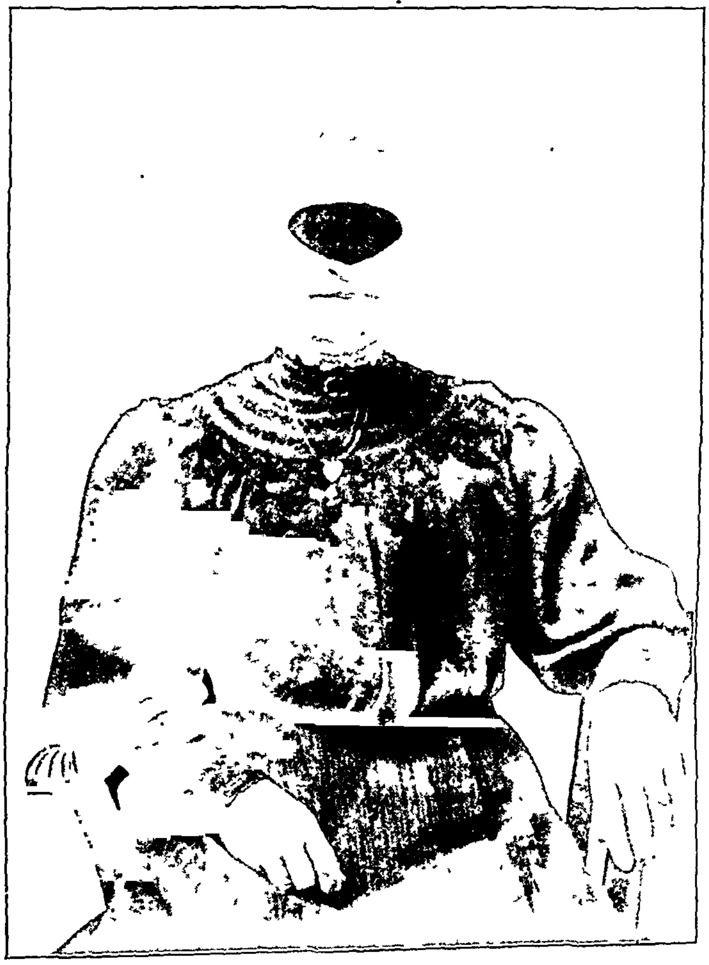

Fig 2.—From photograph of same patient as in Fig. 1, taken in May, 1908, twenty-nine months after beginning thyroid treatment. The chair and the position of the body were the same in the two pictures

She had vertigo and *tinnitus aurium* from 1901. Her weight gradually increased until at the beginning of thyroid treatment it reached 214 pounds (*minus clothing*); height being 5 feet 2¾ inches. The deposition of fat was general, giving a massive and bulky physique; there were voluminous clavicular accumulations of fat.

For many years, from 1893, the patient stated, the body temperature tended to subnormal; and she was unable to take her accustomed cold baths from 1893 until thyroid treatment in 1906. *After 1902 she became* exceedingly sensitive to cold, wore unduly heavy clothing, and suffered chills and rigors on slight exposure.

The skin after 1901 turned a dirty yellowish color: it became dry and scaly over the extremities, so that rubbing the arm would produce a white powdered appearance. The perspiration, previously profuse, diminished in 1903-05. There was puffiness of the eyelids, face and back of hands; the lids and lips felt stiff. The patient had occasional transient edemas about the ankles, hands and face, pitting on pressure. There was no flush over the cheeks. The nails became brittle. The hair on the scalp, previously very oily, became harsh, dry and "dandruffy," and turned markedly gray in 1903; there was no change in the hair elsewhere.

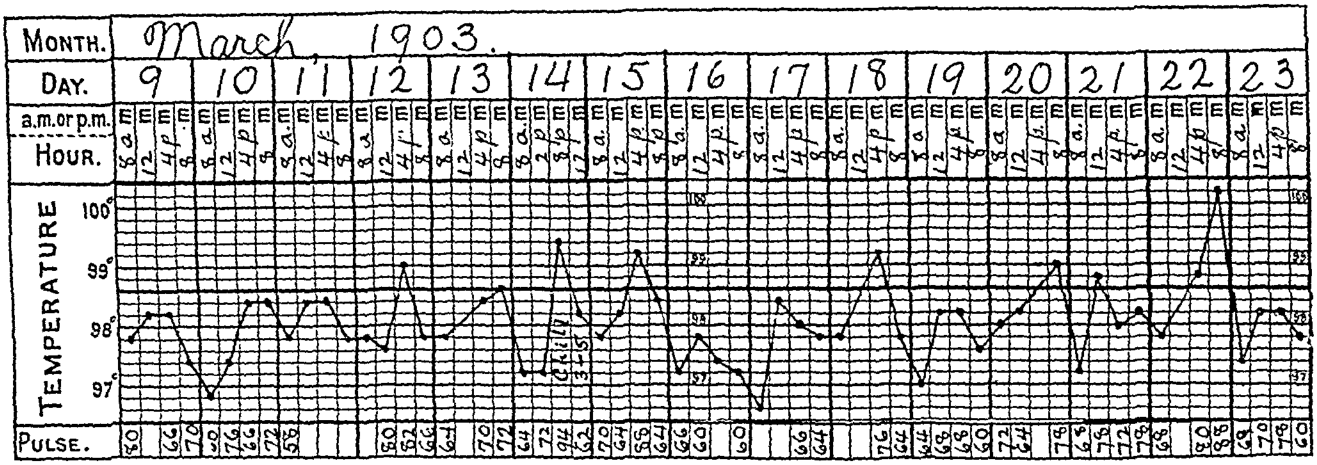

Fig. 3.—Chart of temperature in period of partial myxedema, while patient was untreated, showing subnormal temperature.

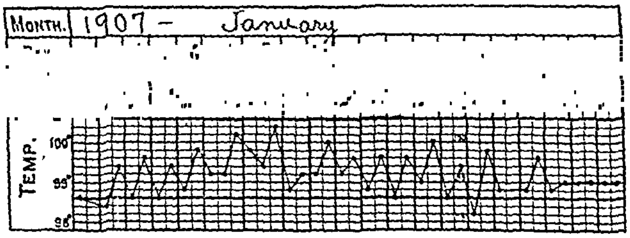

Fig. 4.—Chart of temperature while patient was under full influence of thyroid treatment, showing supranormal temperature.

Palpitation of the heart developed. No hemorrhagic tendency was evinced. A differential count made in September, 1905, showed the existence of a marked lymphocytosis (lymphocytes, mononuclears, and transitionals 58 per cent.). The teeth suffered marked decay. The gums, tongue and nasopharynx exhibited no change. There was slight anorexia. Marked constipation began 1903, with hemorrhoids. The voice was not affected. A sense of constriction of the throat was caused by slight pressure of collar buttons, clothing, etc., over the larynx. The patient suffered marked dyspnea on exertion, and especially on talking.

The patient came under my observation in November, 1905, presenting the multiplicity of symptoms just detailed, which had gradually increased to a maximum. No special organic abnormalities were found to account for the symptoms. Blood pressure was 150 mm. Examination of the stomach contents revealed a hypochlorhydria (total acidity was 28). The general clinical picture seemed to be that of neurasthenia. The patient believed herself to be suffering from chronic nephritis; but repeated examinations of the urine, even with an increased nitrogenous diet, showed no evidence of renal involvement. Careful comparison of the urea output with the nitrogenous intake in the food showed a nitrogen retention, which in the light of later developments is to be interpreted as a result of subnormal proteid oxidation and not a result of renal insufficiency.

Treatment.—Tonics, sedatives, iodids, etc., made no impression. In the latter part of January, 1906, the administration of thyroid was instituted, more with the hope of reducing the obesity than with a realization of the general hypothyroid basis of most of the symptoms. Except for some interruptions for experimental purposes, the administration of thyroid has been continued ever since, in doses ranging from 15 to 2 grains of the desiccated gland substance daily. The striking results of this treatment warrant the diagnosis of this case as one of incomplete myxedema, probably associated with neurasthenic manifestations.

Course of Disease.—The patient's weight, which was 214 pounds at beginning of treatment, in two months fell 23 pounds; remained stationary for three months; then steadily declined until on Dec. 31, 1906, it reached 159 pounds. During the year 1907 the weight declined 10 pounds more, reaching a minimum of 149 pounds on Dec. 31, 1907, a total lowering of 65 pounds. The weight has since continued at about 150 pounds.

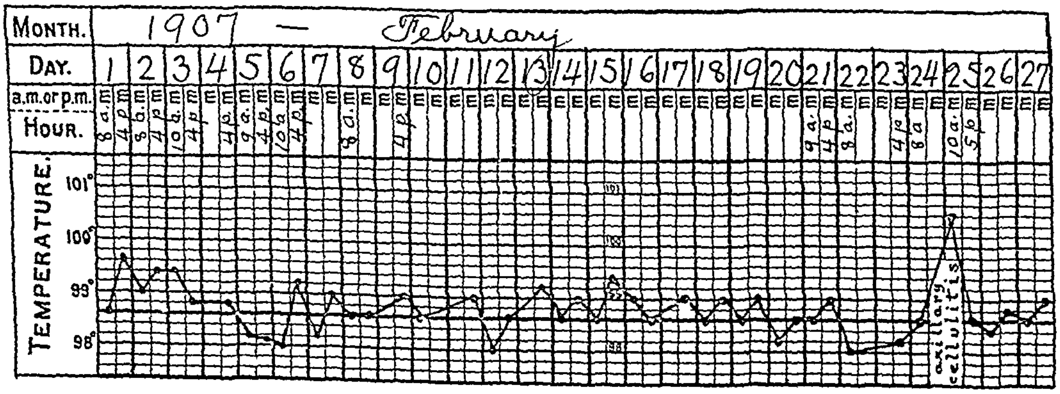

Fig. 5.—Chart of temperature during a period of suspension of thyroid treatment (administration of thyroid discontinued Feb. 1-28, 1907), showing a normal range of temperature.

Along with the loss of weight there was in the course of a few months' treatment a subsidence of the other symptoms, some in part, some completely. The physical asthenia on exertion diminished considerably. The slight mental symptoms subsided entirely. The pains in hepatic region and left chest, the vertigo, and the tinnitus aurium ceased. The body temperature from being subnormal ranged above normal (mostly 99 to 100) during the administration of thyroid. The chilliness and sensitiveness to cold entirely disappeared, and the patient was able to resume cold bathing.

The yellowish color of the skin persisted; but the dryness and desquamation of the skin and brittleness of the nails subsided, and perspiration increased. The puffiness of the skin mostly subsided; a little thickening of the nose continues, and transient edema still occasionally occurs, though much less than previously. The hair fell out freely under the thyroid treatment, but grew out again, softer and less dry. The cardiac palpitation has subsided. Blood pressure has been 110 to 125. The lymphocytosis has continued, the percentage of lymphocytes and mononuclears, large and small, being 50 per cent. Aug. 16, 1906; 43 per cent. Nov. 22, 1907; and 55 per cent. Nov. 13, 1908. The numbers of red and white cells on these dates were normal. The condition of the teeth improved. The anorexia, constipation and sense of constriction in the throat disappeared. The dyspnea greatly improved, but has not entirely ceased.

A study was made of the nitrogen metabolism for two three-day periods, one while the patient was taking thyroid, the other while its administration was suspended. The same diet was taken during both periods, and for three days preceding each period, namely, 1 liter of milk, 4 eggs, 300 grams of Vienna bread and 30 grams of butter, on each day, yielding (by calculation) 1930 calories and 13.9 grams of nitrogen. The results were as follows:

Nitrogen Metabolism

Date. 1906	Conditions of Experiment.	Nitrogen Intake. Food. Gms.	Nitrogen Output. Feces. Gms.	Urine. Gms.	Total. Gms.	Nitrogen Gain or Loss. Gms.
June 15..	No thyroid taken	13.9	1.1	10.1	11.2	+2.7
June 16..	May 22 to	13.9	1.0	10.0	11.0	+2.9
June 17..	June 18:	13.9	1.1	9.3	10.4	+3.5
	Average per day...	13.9	1.1	9.8	10.9	+3.0
July 14..	Thyroid taken	13.9	1.5	11.5	13.0	+0.9
July 15..	since June 19:	13.9	1.4	10.8	12.2	+1.7
July 16..		13.9	1.5	14.2	15.7	—1.8
	Average per day...	13.9	1.5	12.2	13.7	+0.2

This result shows a marked retention of nitrogen while the patient was not under treatment, with a markedly increased metabolism and oxidation of nitrogen while under the influence of thyroid medication, and agrees with the characteristics of the metabolic conditions that prevail in myxedema in general.

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THE DIAGNOSTIC VALUE OF URETERAL CATHETERIZATION

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At the time of the greatest activity in this field of work abroad, and with the birth of it in this country, I became interested in following cystoscopy and ureteral catheterization to the present.

In 1897 I wrote on this subject, and three years later perfected my double catheterizing cystoscope. Before and since this time much has been accomplished, and it seems almost useless to enlarge again on the diagnostic value of cystoscopy and ureteral catheterization; and such would have been my opinion had I not recently listened to one of our most learned internists from Boston, who, in his paper on "The Degree of Functional Ability of the Kidney," took up one by one of the methods at our disposal, such as cryoscopy of the blood, cryoscopy of the urine, the ingestion of anilin dyes, and disposed of all as not giving trustworthy conclusions. The three latter methods require catheterization. To catheterization of separate urines he gave the most credit, but concluded that it was wrought with much danger and therefore unsatisfactory. With this I could not agree, and a number of other questions connected with the subject made me feel that the present status of the question should be well defined.

In order to get other views to corroborate my experience and conclusions I have addressed fourteen physicians in this country, all of whom have a wide experience in the use of the ureteral catheter, and asked them for their answers to six questions. I received replies from thirteen, namely: Dr. Howard A. Kelly, Dr. Willy Meyer, Dr. Eugene Fuller, Dr. F. Tilden Brown, Dr. Hugh Cabot, Dr. John B. Murphy, Dr. George R. Swinburne, Dr. R. Guiteras, Dr. H. E. Hayd, Dr. Winfield Ayres, Dr. Follen Cabot, Dr. W. F. Braasch for Dr. Charles H. Mayo, and Dr. Bransford Lewis.

Q. 1.—How frequently does a secondary infection occur in the healthy side when one infected kidney exists and no instrumentation employed?

A.—The bulk of the evidence summarized would show the occurrence to be rare, particularly if the bladder is not infected. It is more common by systemic or (hematogenous) conveyance than through the urine. It has been observed in calculus and tuberculosis of the kidney. Only one observer (Dr. Lewis) answers that it is common. It is probable that he sees many cases of pyonephrosis with calculus and tuberculosis in a late stage. Secondary infection being of rare occurrence we must conclude that the healthy side is very tolerant and not easily infected.

Q. 2.—Should infection occur at all following catheterization of the ureters when no prior infection exists?

A.—All answer this in the negative. This conclusively shows that catheterization is practically harmless in a healthy individual and so may be done for diagnostic reasons or for demonstration and teaching.

Q. 3.—One side being infected, how frequent is infection of healthy side produced by catheterization?

A.—Ten never knew it to occur. One: "Can't answer." One: "Never if bladder is healthy." One: "Most infrequent, no personal experience of occurrence."

This is certainly overwhelming evidence of its usefulness and safety.

Q. 4.—Knowing one side to be infected, can one rely on catheterization of this side alone, leaving the other side to be represented by a catheter in the bladder?

A.—Seven answer: "No." Three: "If bladder is not involved." One: "In some cases." One: "If urine from catheter in bladder is normal." One: "If catheter is inserted high in ureter and if bladder is healthy."

From these answers one must conclude that it is necessary to catheterize both sides in the majority of cases. Particularly since we know the bladder or its contents to be infected in most cases.

Q. 5.—After nephrectomy without resection of the ureter or injection of same toward the bladder with pure carbolic acid, is it not common to have pus in the urine coming from ureter so left?

A.—Six say: "Yes." One: "Yes if pyelitis existed." Two: "Yes in tuberculous cases." "One: "Majority for short time, persists in few." One: "Yes for few months." One: "No." One: "No. Observed, however, in two cases pyonephrosis."

This being answered by almost all in the affirmative, it seems best surgery to resect the ureter and inject any portion remaining with carbolic.

Q. 6.—If infection of healthy side does occur should one expect marked symptoms and should these follow soon after the instrumentation?

A.—Nine: "No such experience." Four: "If it occurs, marked *symptoms soon.*"

These answers imply that such an accident must be very rare and that should it occur marked and rapid symptoms should be expected.

These six questions cover, as I intended they should, every possible point on which a question of justification for this procedure can be raised, and I am most grateful for the responses received.

In order to have experts available in this field it is essential that all work in the smaller cities be turned over to one or two men who are willing to give it their earnest attention. No man who has not had good surgical training should attempt this work.

Having established the usefulness of this procedure and almost conclusively proven its safety when done by one trained for the work, we are ready to look into the bladder and see what can be learned from the use of the ureteral catheter.

We will spend no time in determining or discussing which medium, water or air, or direct or indirect view, is best. It matters not what instrument is used so long as the operator who uses it can get results. For a long time I used air only, but of late have found many instances in which I prefer to use water to distend the bladder.

An examination of the bladder is in a way unavoidable while catheterizing the ureters. The condition of the mucous membrane, the presence of cystitis, ulcer, polyp, tumor or stone, the existence of diverticuli, or sinuses connecting with another viscus may be recognized. The jet of urine as it spurts from the ureteral opening without the entrance of the catheter often makes clear a vague pathologic kidney condition. I have twice seen the expulsion of a calculus through the dilated ureteral opening. A tuberculous kidney can often be diagnosed by the appearance of the mucous membrane about the ureteral opening in the bladder. Recently I saw a picture on looking into the bladder that showed such an amount of venous stasis from pressure of a large renal growth of the left side that the veins honeycombed the surface of the mucosa so extensively that the bladder seemed trabeculated. On dilating still further the pressure from within entirely overcame the condition. Stricture of the ureter at its opening or along its tract gives symptoms long before any marked destruction of the kidney occurs, and when relieved naturally avoids the loss of the kidney and often the life of the patient. Obstruction of the ureter by calculus, kink or pressure from extrinsic tumors are diagnosed. Sacculations of the ureter with pus pockets are made out by the flow of pus in good quantity before the catheter has reached the pelvis with a cessation of flow on passing beyond the pocket. Pyelitis, pyonephrosis, hydronephrosis, pyonephritis and calculus are easily distinguished, and in some instances even before the urine is microscopically examined. The microscopic examination of the urine so drawn in the hands of experts will to-day differentiate the various pathologic kidney lesions.

Bacteriologic examination even more than the above gives the greatest amount of information concerning the various infections with which the human genitourinary tract abound. The distention of the kidney pelvis with a small quantity of sterile water or antiseptic solution will often reproduce exactly the symptoms that exist during an attack. Leaving the catheters in place for several hours gives a very good comparative test of the functionating power of each kidney, and if the diseased organ is not functionating all the more reason for its removal. The first urine escaping from the catheter is often stained with blood and should not be retained for examination unless the bleeding persists. A few blood cells found microscopically and no other renal elements should not be taken to signify a pathologic condition.

Lastly, the introduction of the ureteral catheter prior to performing complicated pelvic surgery or hysterectomy is a safe guide in avoiding injury to the ureter. I have once seen the ureter cut in a Kraske operation. Even though it was successfully transplanted it would not have happened had there been the catheter as a guide.

Till some better method is at our disposal let us take the optimistic view of this procedure which, I feel, is to stay supreme for a long time.

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SYSTEMATIZED TECHNIC OF SUPRAPUBIC PROSTATECTOMY

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Since the inauguration by Belfield of the suprapubic operation for relief of prostatic hypertrophy, and its further development by McGill, Freyer, Guiteras, Burckhardt and others, a certain standstill seems to have taken place in the further elaboration of its technic, while perineal prostatectomy has become a competitor, especially since the Zuckerkandl, Rydygier, and the French technics were adapted and amplified by Young.

The definite success of suprapubic prostatectomy will depend, as that of other surgical methods, on the reduction of primary mortality and the securing of good and permanent functional results. An analysis of the basic factors on which these two issues depend will show the way to their improvement.

Primary mortality is essentially influenced by the immediate and remote dangers of anesthesia, by hemorrhage and by infection, especially of the peritoneum and the prostatic venous plexus. The primary mortality is, furthermore, influenced by the length of time patients are kept in bed after operation; old individuals, whose hearts and excretory organs are, if not already materially injured, certainly impaired in resistance, do not very well stand a prolonged confinement in bed. The functional results depend on the extent and nature of the surgical injuries inflicted on the tissues by the operation and on the conditions resulting therefrom. Bruising and tearing the tissues will not only interfere with quick healing, but will also tend to result in cicatricial distortions which will impede the urinary flow. If favorable conditions for the obliteration of the bed of the prostate are not secured, that cavity will remain a granulating basin in which stagnation of the urine, with all its undesirable consequences, will again occur.

The working points, from a consideration of which the evolution of a successful technic could be developed, might be enumerated as follows: In order to reduce to a minimum the primary and remote dangers of anesthesia, nitrous oxid and oxygen narcosis should be employed. The absence of pronounced or prolonged malaise after this anesthetic enables the patient to take food and drink very soon after operation. The absence of prostration and stupor, so common after ether or chloroform, does away with paresis of the intestines and renders it possible to start out a few hours after operation with the regular breathing exercises so important in old patients. Since nitrous oxid does not attack the heart muscle, the circulation is left unimpaired and hypostatic pneumonia and embolism do not occur. All these conditions make it possible to let the patient sit up twenty-four hours after operation and to begin taking him out of bed on the third day.

In order to prevent involvement of the peritoneum by an infection which might already have existed in the bladder or which might appear during the course of the healing process, the peritoneal duplication should, before the bladder is opened, be removed from the field of manipulations and should be entirely and securely secluded from the operative wound. In order to prevent tearing and subsequent thrombosis and infection of the prostatic venous plexus, the shelling out of the prostatic tumor should be done in such a way that this plexus is never touched. In order to prevent superficial necrosis of the denuded surfaces and to foster their quick healing, all traditional drainage of the perivesical spaces should be abolished; such drainage, furthermore, leads quite often to infection of the concerned cavity from without. In order to create in the operative field conditions most favorable for obtaining good functional results, the various operative steps should be adapted to the specific character of the prostatic hypertrophy encountered. The recognition of such conditions can be obtained only if the prevailing formations can be not merely palpated, but also seen, for faultless technic depends on the possibility of doing all the operative steps under the guidance of the eye. This means that the inside of the bladder must be freely exposed through a liberal incision; the incision leading down to the prostate and the subsequent enucleation of the tumor can then be modified according to the conditions peculiar to the case.

A comparison of the technic of various surgeons as gleaned from personal observation and from publications, together with a study of the different types of prostatic tumefaction, as well as various attempts to adapt the different steps of the operation to the abovementioned demands and points, led me to the development of a certain technic in my cases which has so far proved very satisfactory. It is my purpose, first, to describe the steps of this operation as they are common to all the cases, after which the modifications rendered necessary by the peculiarities of various types will be specified.

Previous to the opening of the abdomen, the bladder is filled with a lukewarm 2 per cent. collargol solution; the amount of fluid injected depends on the condition and size of the bladder. The injection of this fluid should be kept up until the bladder is moderately distended; in other words, until the muscular resistance of the bladder against further distention is perceived; it is, therefore, best, before the patient is anesthetized, to make this injection with a smoothly running hand-syringe. The catheter used for injection is left in place and, in order to prevent its slipping out, a gauze strip is tied around the penis just tightly enough to prevent any dislocation of the catheter. Care should be taken not to strangle the member by this manipulation; otherwise extensive subcutaneous hemorrhage or edema might follow. If a soft rubber catheter is used, the escape of the fluid is prevented by tying a loop in its distal end; in case an elastic Mercier is employed, it is closed by a little wooden stopper. Even in cases that do not permit of any distention of the bladder on account of certain inflammatory conditions, a catheter is inserted and left in place so as to mark the internal urethral opening after the bladder is once incised. The patient is then anesthetized and afterward placed in Trendelenburg's position.

A median incision over the region of the bladder is now made through the skin; this incision goes well down to the symphysis and is carried upward above the border of the bladder dulness. The incision must be of this extent, because its upper end, as will be shown later, is closed up again before the bladder is opened, and sufficient space must be reserved for the ensuing manipulations. The subcutaneous fat and fascia are also split with the knife and all bleeding points carefully attended to. The muscles appearing in the bottom of the wound are separated by blunt dissection, exposing the perivesical and preperitoneal fat and the peritoneal duplication. Both the recti are now drawn aside by retractors and the perivesical fat and the peritoneal fold are stripped together from the bladder and then pushed upward by means of a gauze sponge; this detaching is carried on until the whole anterior aspect of the bladder is freely exposed. The perivesical fat and the peritoneal fold are then caught in a suture running transversely from the uppermost part of the edge of one rectus, through the fat and the fold, to the uppermost part of the edge of the other rectus. An assistant pushes this entire flap underneath the muscles while the suture is tied. Two more sutures reunite the fascia and bury the flap completely, so that from now on the peritoneum is kept absolutely out of the field of operation and out of the reach of any existing or subsequent infection. Two sutures are now inserted at either side of the intended bladder incision pretty close to the symphysis; these sutures are later on used as guy-ropes for lifting up the edges and the base of the bladder after the viscus has been opened.

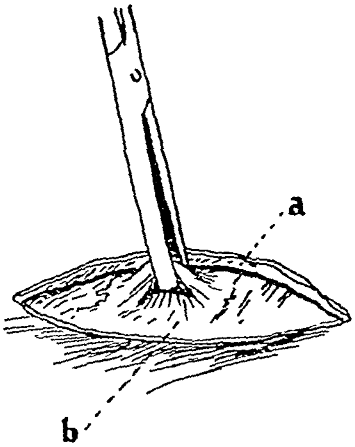

Fig. 1.—The prostate exposed through the mucosa incision and seized by vulsellum; a, edge of severed mucosa; b, prostate.

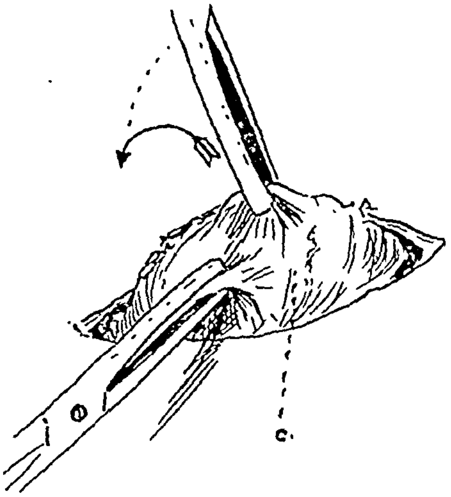

Fig. 2.—Partial enucleation of the prostate and lifting up of the loosened part of the gland above the incision; c, prostate.

The bladder is then incised in a vertical line by means of a pointed bistoury. The fluid pouring out of the bladder is taken up by gauze pads until everything inside and outside of the bladder is perfectly dry. The incision in the bladder wall is then enlarged until the base of the bladder and the internal urethral orifice are brought into plain view.

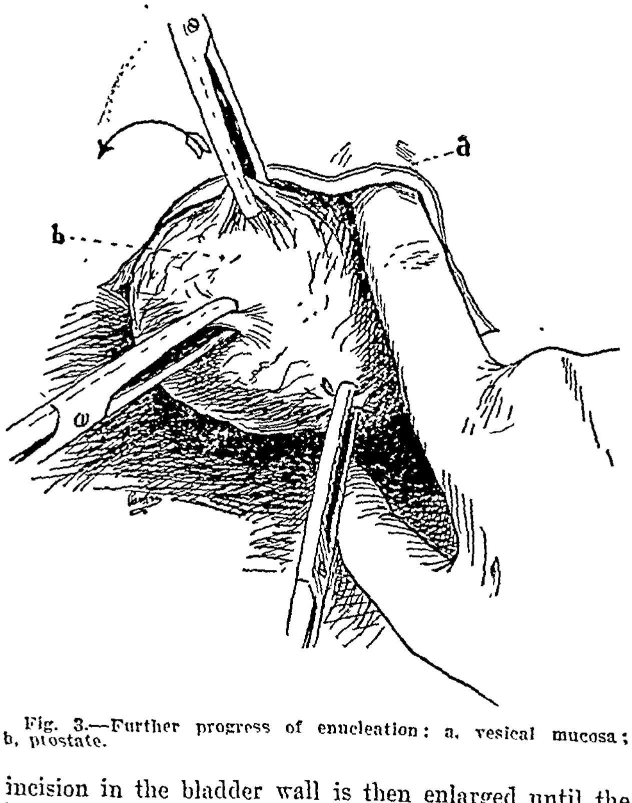

Fig. 3.—Further progress of enucleation: a, vesical mucosa; b, prostate.

A Simons or Martin vaginal retractor is now inserted in the upper angle of the bladder wall while the lower angle is stretched and pushed back by the insertion of a bayonet-shaped vaginal lever; in this way the field of the endovesical operation is made satisfactorily accessible. The tip of the catheter plainly marks the internal urethral orifice, while the intraureteral ligament and the ureteral openings can also be readily seen. This free exposure of the inside of the bladder also makes it possible to avoid incising the atheromatous arteries which quite frequently run over the prostatic region.

The nature of the prostatic tumefaction we are dealing with is now determined by inspection and palpation; this information, together with the above-mentioned landmarks, enables us to decide whether a partial exsection is sufficient, as is sometimes the case, and just where the incision into the vesical mucosa can be made to the best advantage.

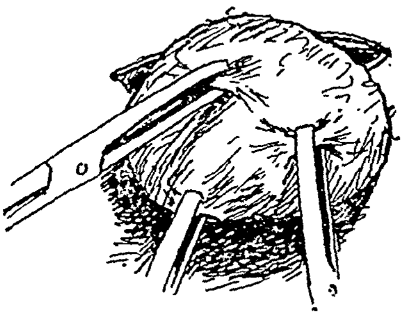

Fig. 4.—Prostate delivered in front of the mucosa incision.

The introduction of one or two fingers of the operator into the rectum, in order to push the prostate upward, I have abolished entirely as non-aseptic. Only in rare cases of very soft prostates it might seem to be to advantage to mark the prostate better by such a manipulation, and then the fingers of an assistant should be made use of for this purpose. The prostate is fixed and lifted up into the field of interference by grasping its most prominent part by means of a vulsellum, after which an incision is made with a knife into the mucosa of the bladder at the selected place. The use of the finger-nail, instead, in digging down through the mucosa to the prostate is clearly a surgical impropriety. Bruised and torn tissue does not heal readily, and the statement that it is easier and safer to find the right cleavage between the mucosa and the prostate by means of this blunt digging does not hold good if one operates under the guidance of the eye. I think, furthermore, that at the present time few surgeons, at least no American surgeons, would operate without rubber gloves, which fact would certainly make this digging more difficult and time-wasting. The incision should not be made too short, for if the tumor is forced through a small opening tears in the mucosa might result, although the elasticity of the mucosa insures a certain amount of stretching.

The incision into the mucosa is deepened until a white layer appears. There are now two possibilities: If the incision has been made over a portion of the tumor that protruded prominently into the viscus, the true capsule of the prostate will be immediately recognized from the fact that the palpating finger does not find a movable layer over the prostate, whereas, if the incision has been made near the base of a prominence, the first white layer to appear is the so-called sheath of the prostate, recognized by its mobility over the underlying prostate and its true capsule. In case this sheath is encountered, it is also split by the knife, and the prostate, covered by its adherent true capsule, appears in the incision. This exposed portion of the prostate is now seized with a vulsellum and dragged upward under moderate tension (Fig. 1).

A poker or the tip of the index-finger is then introduced back of the vulsellum, between the prostate and the mucosa and sheath, and the covering layers are stripped from the gland (Figs. 2 and 3). Two principles should be kept in mind during this proceeding: The prostate with its capsule should be enucleated from the sheath formed by the rectovesical fascia, and the enucleation should proceed from the posterior surface of the tumor toward the symphysis. While this enucleation is being carried on, the gradually appearing parts of the prostate are seized progressively by vulsella and lifted out in the general direction of the enucleation while the index-finger, by slitting motions, detaches it from its surroundings. Thus the enucleation is done under the constant guidance of the eye. One should be careful to watch for tissue strands running from the capsule of the prostate to its sheath; these strands should not be torn, but should be severed with a knife or curved scissors. In this way injury to the sheath and breaking into the prostatic venous plexus are avoided. After the entire prostate is freed and lifted up, the finger detaches it from the triangular ligament. This is the only step of the enucleation that has to be done in the dark and by palpation alone; no difficulty is encountered, however, because by this time the entire prostate has been developed into the cavity of the bladder and no possible harm can be done by rolling it off from the ligament (Fig. 4). This enucleation almost always produces the organ *in toto*. Should such not be the case the remaining portion is again seized by a vulsellum and removed in the same manner. The index-finger is then reintroduced into the cavity and a careful search is made for small nodules which are occasionally left in the depth. These also are enucleated with the index-finger in order to avoid a recurrence of the tumefaction. After all this is done the bladder and the prostatic side are flushed out with a hot 2 per cent. collargol solution until the fluid returns clear. Everything is then dried by means of large gauze sponges and the catheter is removed.

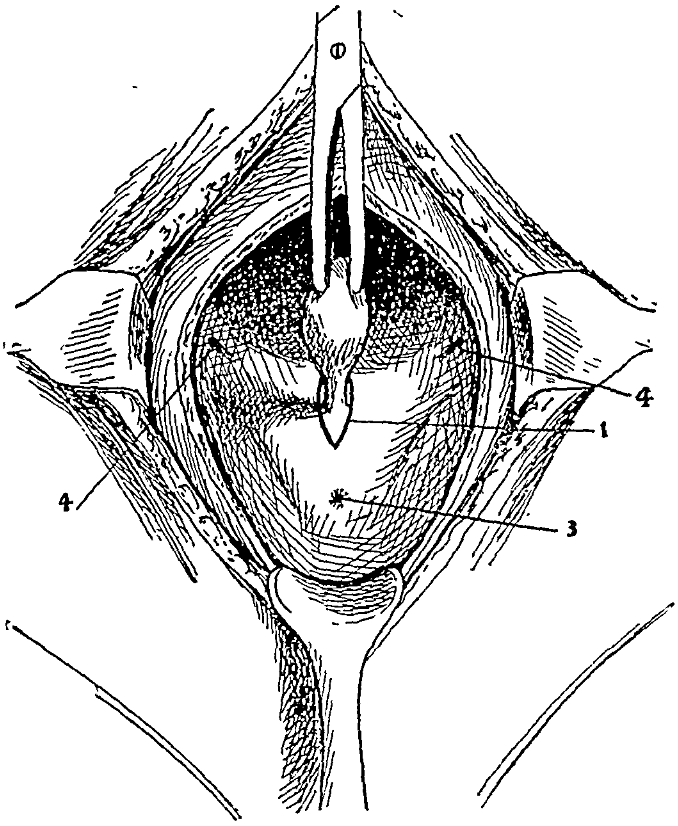

Fig. 5.—Solitary pedunculated excrescence of the prostate; 1, incision in vesical mucosa; 3, urethral orifice; 4, 4, ureteral openings. Half-schematic drawing.

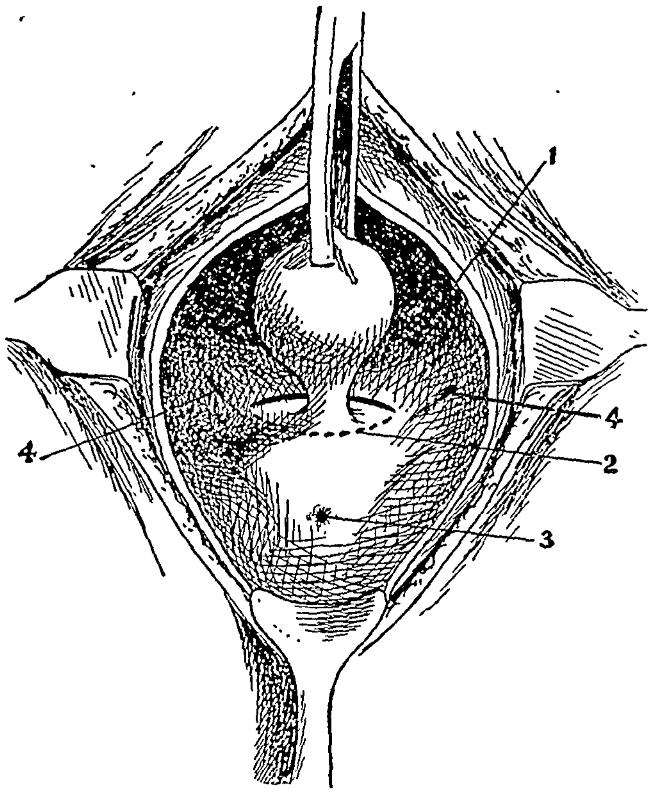

Fig. 6.—Pedunculated median lobe protruding into the bladder coincident with general hypertrophy of the prostate; 1, first incision into the vesical mucosa; 2, occasionally necessary incision; 3, urethral orifice; 4, 4, ureteral openings. Half-schematic drawing.

The mucosa flap covering the prostatic cavity, which by this time has shrunk considerably, is now pressed down toward the underlying tissue and kept in this position by packing the bladder with a wide strip of very weak iodoform or of similar gauze. The end of this strip is led to the surface and the bladder closed with catgut sutures, save for a little gap in the vertex which permits the emanation of the gauze. These sutures are inserted in such a way as to bring the denuded surfaces of the muscularis together and to avoid any impaction of the mucosa. After the bladders of old people are opened the mucosa will as a rule detach itself spontaneously from the muscular coat, appearing as a fine border; if not, it is detached to a small extent with a knife-handle or small poker in such a manner that when the sutures are inserted the mucosa lips will fold themselves together and protrude like an edge into the cavity of the bladder. After this the fascia of the muscles is reunited by catgut sutures up to the drainage openings; the skin is then closed in the same manner.

The gauze strip just mentioned also serves the purpose of leading the urine out of the bladder until natural urination takes place. It is not only unnecessary but also disadvantageous to insert a rubber tube deep into the bladder, as this necessitates leaving a larger opening; moreover, the pressure of such an extraneous body often leads to necrosis. One should not forget that the bladder, being a contractile organ, drains itself, as it were.

I have entirely abandoned both suspension of the bladder to the abdominal wall and drainage of the perivesical space. The suspension of the bladder tends to excite spasmodic contractions of that organ which interfere with the knitting together of the tissues and cause pain and discomfort to the patient. I was induced to do away with drainage of the perivesical space by the fact that in my experience this space is entirely obliterated by natural pressure after the patient is brought back into a recumbent position, and that the abolition of drainage leads to quicker healing. This observation was also made and published by several German surgeons.

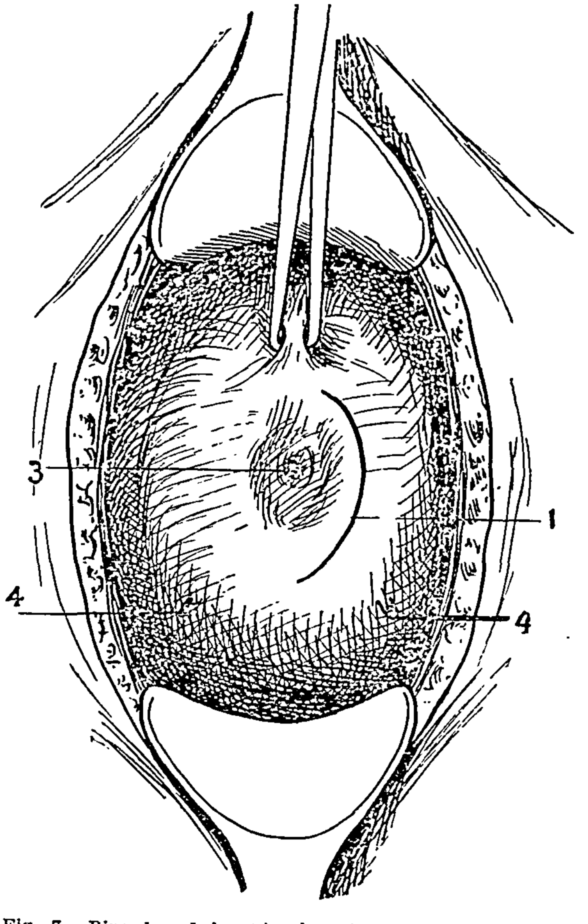

Fig. 7.—Ring-shaped hypertrophy of the prostate surrounding the whole prostatic urethra; 1, incision through vesical mucosa; 3, urethral orifice; 4, 4, ureteral openings. Half-schematic drawing.

An extremely vital step in the operation is the determination of the location of the incision through the vesical mucosa, for the proper selection of this location ensures a greater facility in enucleating the tumor and the most favorable conditions of the cavity and wound after removal has been completed. The importance of a definite diagnosis after opening the bladder is exemplified by the type of prostatic obstruction illustrated in Figure 5, which shows the protrusion into the bladder of the median lobe of an otherwise untumefied gland in such a way as to act like a ball-and-socket valve. In a case like this it would be absolutely unnecessary to remove the entire gland, the exsection of the pedicle of this lobe, as indicated in Figure 5, being sufficient. The pedicle is circumscribed by an oval incision and a wedge-shaped piece of the underlying tissue is exsected in continuity with the pedicle. The resulting wound is then firmly closed by a few deep catgut sutures and the bladder sewed up completely. As a rule patients urinate naturally a few hours after operation; in the rare cases in which they are unable to do so the bladder is emptied at proper intervals by means of a soft catheter. A permanent catheter should never be employed.

Another type is seen in the development of a more or less distinctly pedunculated median lobe in addition to hypertrophy of other parts of the gland, and is marked by the pushing of the base of the bladder into the cavity (Fig. 6). In such an event the protruding lobe is seized at its top by a vulsellum and dragged upward until the basal mucosa becomes tense. A crescent-shaped incision into the mucosa is then made somewhat distant from the base of the pedicle, as indicated by the heavy line in Figure 6. After the prostatic surface is exposed the gland is enucleated in the manner described above. The enucleation often runs along quite smoothly until the junction of the bladder mucosa with the tumor in front of the pedunculated lobe is reached. If the detaching of this part of the mucosa seems difficult, or if the resulting anterior flap appears a little too large, the mucosa is severed by an incision indicated by the dotted line in Figure 6.

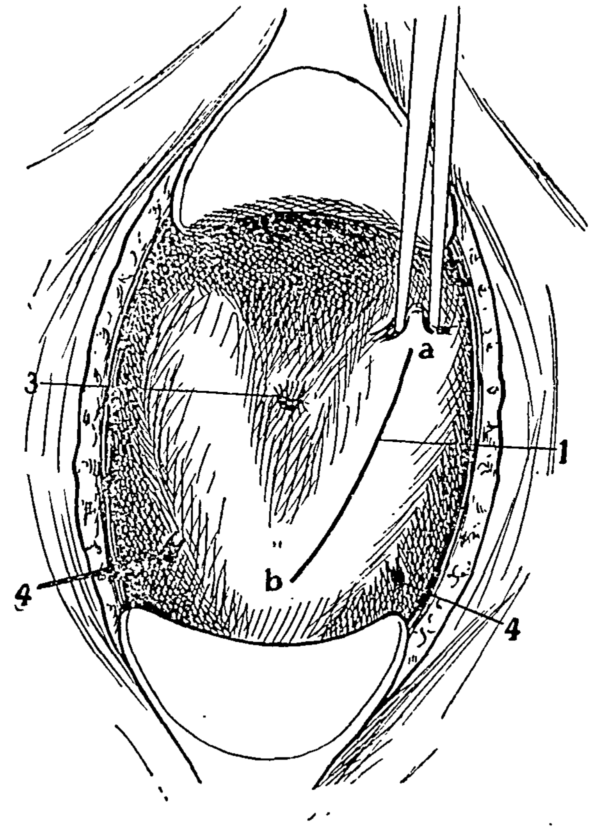

Fig. 8.—V-shaped hypertrophy of both lateral lobes; 1, summit of lateral lobe; a, b, incision through vesical mucosa; 3, urethral orifice; 4, 4, ureteral openings. Half-schematic drawing.

In those cases in which the anterior portion of the prostate also participates in the enlargement, so that a hypertrophied ring encircles the whole urethra, the incision through the mucosa is best made in such a way as to half encircle the urethral opening; this semicircular incision is made either to the right or to the left, according to the side of greater prominence (Fig. 7). Here, too, the enucleation of the prostate is done under

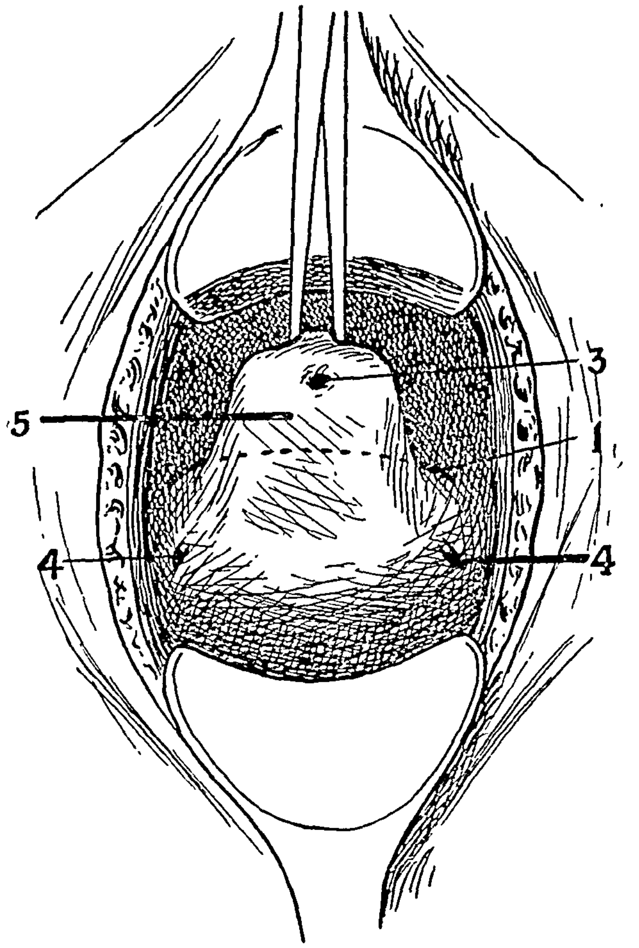

Fig. 9.—Hypertrophy of prostate with protrusion into the bladder of the median lobe carrying along the prostatic urethra; 1, line of incision through vesical mucosa; 3, urethral orifice; 4, 4, ureteral openings; 5, median lobe of prostate. Half-schematic drawing.

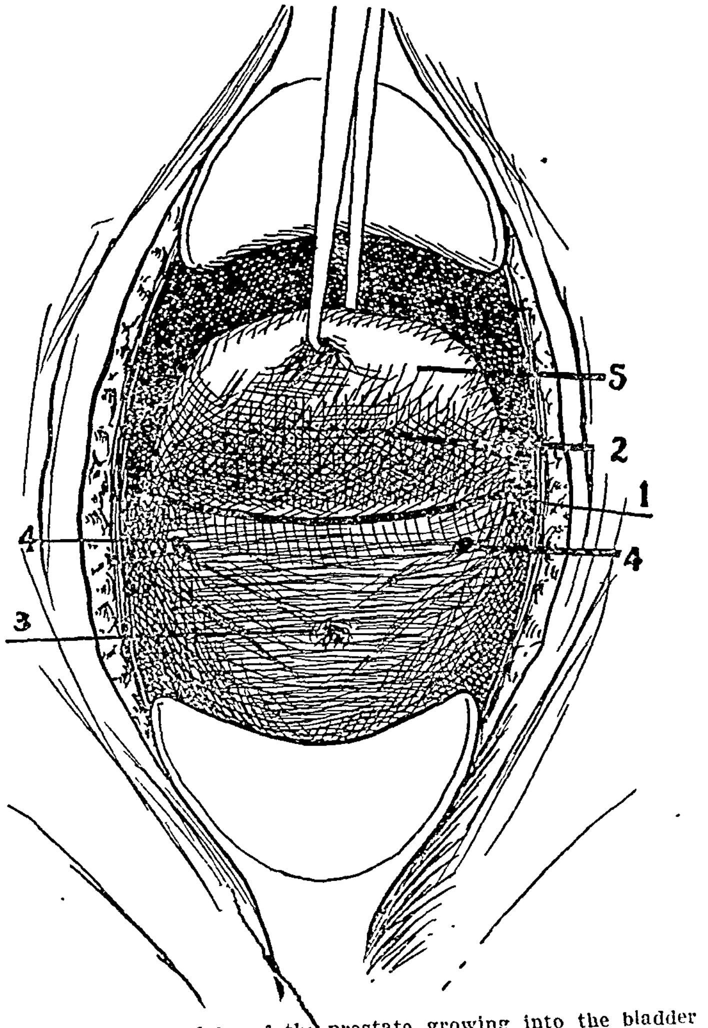

Fig. 10.—Median lobe of the prostate growing into the bladder as a massive tumor; 1, anterior circumference of mucosa incision; 2, posterior circumference of mucosa incision; 3, urethral orifice; 4, 4, ureteral openings; 5, massive tumor of prostate. Half-schematic drawing.

the guidance of the eye and by gradually lifting the tumor out by means of progressing vulsella. On this occasion I wish to mention that the partial or total removal of the prostatic urethra does not in the least interfere with a smooth healing and a perfect final result, provided that the after-treatment be carried out in a manner adapted to this particular incident.

In instances where the hypertrophy is confined mainly to both lateral lobes, so that what is commonly called a "prostatic thor" results, the incision is made over the most prominent contour of one of the lobes, as indicated in Figure 8, and the enucleation is performed in the above described manner.

Another type of prostatic hypertrophy, as illustrated in Figure 9, demonstrates again how important it is to make a correct final diagnosis after the bladder is opened. It will occur in certain cases that the median lobe, by growing into the viscus, carries along the central end of the urethra so that the internal urethral orifice appears at or very near the top of the tumor. Were this incision to be made indiscriminately—for instance, were it to cross the anterior surface of the tumor—severe injury to the urethral end, with all its complications such as hemorrhage or traumatic stricture, could not be avoided. In such instances the mucosa incision should encircle the posterior base of the tumor, as indicated by the dotted line, and the enucleation thus begun will proceed without difficulty and without dangerous lesion to the urethra.

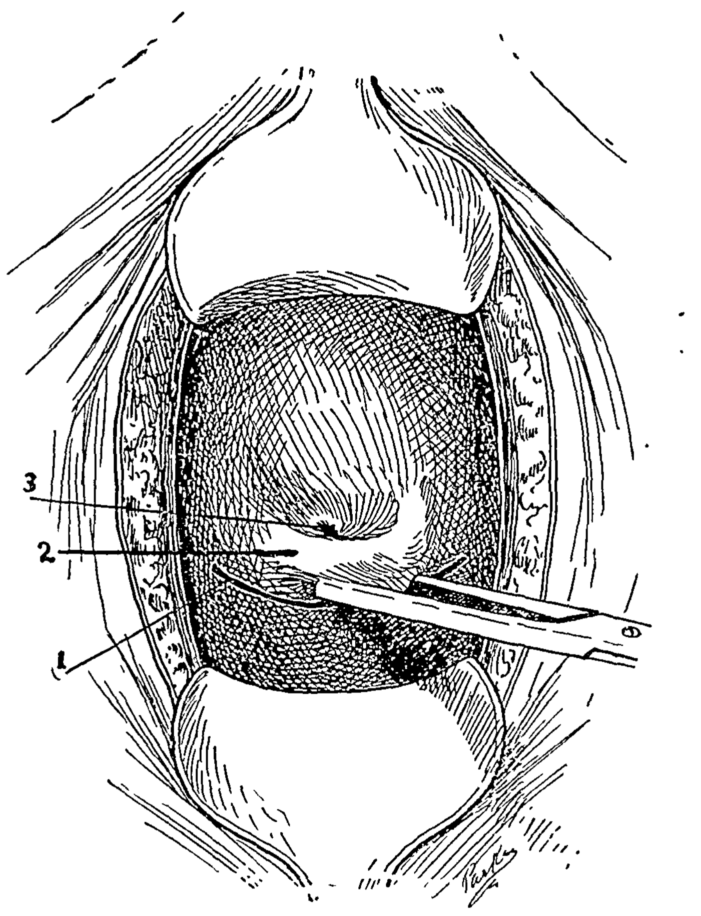

Fig. 11.—Collar-shaped hypertrophied prostate; 1, line of incision through mucosa; 2, collar-shaped protrusion of prostate into the bladder; 3, urethral orifice. Half-schematic drawing.

In other cases the median lobe will grow into the bladder as a massive tumor of such extent that it practically divides that organ into two halves (Fig. 10). It is entirely erroneous to make the incision, as is so often done, over the top of a tumor of this description, for such an incision means only unnecessary hemorrhage and loss of time. It is impossible to find the right cleavage at the top of such tumors because there is no sheath and because the true capsule of the prostate and the vesical mucosa are thinned out to such an extent in this location that they scarcely can be isolated. In such instances the base of the tumor is encircled by a complete circumcision as indicated in Figure 10. This incision should be made in such a way as not to interfere with the urethral openings which, according to the nature of the case, may lie in front of or behind the tumor. The enucleation is then started from the posterior incision.

In cases of collar-shaped prostate it is important to grasp the prostate with a vulsellum in the proper manner. It is a mistake to apply the forceps to the protruding edge at right angles to the elevation, for if this be done the forceps or vulsellum will tear out and unnecessary injury and hemorrhage will be produced. The vulsellum should be applied at the posterior aspect of the collar, somewhat above its junction with the base of the bladder (Fig. 11). This incision through the mucosa is made parallel to the collar and posteriorly from it, somewhat distant from the insertion of the vulsellum. The enucleation of the prostate is then carried on from behind forward. Thus the mucosa adjacent to the internal urethral orifice rolls off easily from the tumor and any injury to the urethral mouth as well as any tearing of the edges of the vesical mucosa is avoided.

92 State Street.

IGNORANCE OR MALPRACTICE?

FINANCIAL AND CLIMATIC CONDITIONS IN THE TREATMENT OF TUBERCULOSIS

W. WARNER WATKINS, M.D.
PHOENIX, ARIZ.

The object of this communication is to call attention to a phase of the tuberculosis question which is being treated with reprehensible neglect by far too large a percentage of general practitioners. It must be understood that these remarks apply solely to a particular class of patients and to a particular custom of which they are the unfortunate subjects; the word "custom" is used advisedly since the practice does not merit the term "treatment."

The patients are those who have reached an advanced stage of phthisis and in whom the disease is making steady progress, insidious or rapid as the case may be; whose financial means are small and who can not, under the most favorable surroundings, provide themselves with more than the necessities of life or who perhaps are the actual wards of charity.

The custom is that, in the face of all known teachings concerning the disease and in the face of common sense and humanity, physicians will persist in sending this class of patients away from home, family and friends to die in a strange land, by holding out to them the fatuous hope of recovery in a "change of climate."

There is no intention here to disparage the value of a suitable climate in the treatment of pulmonary diseases; but every intelligent physician knows that any climate, however favorable, is valuable only as a subsidiary adjunct to one of the three essentials for the constitutional upbuilding required to check the progress of a pulmonary tuberculosis, these essentials being rest, proper food and fresh air. The Salt River Valley may have the most equable climate and the finest atmosphere in the world—and we who live here firmly believe that it has—yet any physician who advises a patient to sacrifice the first two essentials for the sake of the third is guilty of something more than mere ignorance, for in this day of free knowledge ignorance on this point is sin. Not even 360 days of sunshine each year can equip our climate with any curative value in tuberculosis when the system is deprived of food and the patient of rest or, even when these are granted, when the patient is hopelessly diseased. I am as firm an advocate as any one of this and similar climates as an adjunct to outdoor life (fresh air) when the patient is financially able to provide himself with the other more vital essentials of rest and proper food. But if he has not the means to place himself under the direction of a physician, if he is not able to pay for the necessary care when he is required to rest in bed or otherwise, if he is not able to provide himself with the very substantial food which is always required, then he can hope for absolutely no more improvement in Arizona or any other resort than will come to him at his own home—wherever that may be—with the advantage of the solicitous care of family and friends. The physician who advises him otherwise is guilty either of ignorance or malpractice; and even with all these advantages possible, moribund patients can hope for nothing more here than at home and should be so advised.

It seems inconceivable that physicians can dwell in enlightened communities and remain ignorant of the rudiments of pathology and therapeutics as applied to tuberculous processes when the entire medical world is surcharged with the purpose of educating even the public in these facts. But that such ignorance does exist is only too evident to those of us who practice in communities like this, where are congregated the victims of such professional ignorance, or, if not ignorance, then malpractice, pure, simple and unadulterated. It is deception as cruel and heartless as are the methods of the ubiquitous fakers against whom such a relentless warfare is being waged.

Case 1.—A boy, aged 16, worked on an elevator in Pittsburg, Pa., until forced by a hemorrhage to stop; his mother being dead, his father a loafer, the boy was dependent on his own efforts. Some business man gave him $150 and on the advice of a prominent physician of Pittsburg he came to Arizona with these instructions: "Live outdoors, stay away from doctors and you will get well." A charitable institution found him and referred the case for admission to St. Luke's Home, to whose staff I belong. The patient was found to be in the advanced stages of pulmonary tuberculosis with consolidation, cavities and visceral involvement. He was not admissible to St. Luke's and was advised to return by the first train to his home town and friends, which he did.

Case 2.—A young married woman (two months pregnant) with acute miliary tuberculosis was sent to Phoenix from one of the most enlightened cities of southern California; she spent her last dollar for traveling expenses and arrived in Phoenix absolutely destitute, not having means to provide even a night's lodging. Charitable people learned her plight, collected a sum of money and placed her in a tent colony for two weeks, from which she passed first into the County Hospital and then under the care of the Associated Charities, which provided for her until she died. Her physician in California, in whom she had placed implicit confidence and who knew her financial condition, had told her that Arizona was her only hope for recovery.

Case 3.—A young man was sent here from Oregon, with an advanced tuberculosis of three years' standing which had finally reached that stage of morbidity where Arizona was the "only hope" in the judgment of his physician. The patient learned from the same source that all he had to do was to secure a bed, a tented roof, camp on the desert "somewhere" and provide his own meals, all at a cost of about $8 per month, and *get well*. Presumably this physician, besides having unbounded faith in the curative value of our climate, also felt a noteworthy confidence in the protection of a benign Providence over his patient, possibly expecting the birds of the air to fetch his food as the ravens did for the prophet.

If these were isolated cases they would be interesting only as examples of man's inhumanity to man; but they are representative of a vast number of cases and the number is constantly on the increase. Phoenix is one of the best-known health resorts in the country for pulmonary tuberculosis, and what is said of Salt River Valley is true of any similar section of the country to which health-seekers are sent indiscriminately. Patients come here and have to be taken from the train by strangers, by representatives of charity or by the civil authorities. The point in the protest is this: that reputable physicians in every section of the country are responsible; they have urged the patient to leave his home where he could at least have died comfortably; have placed him on the train at his home town with no means save his railroad fare and with the delusive advice that he could doubtless find some light work at the destination at which he could make a living and the climate would do the rest. The effort to find that work almost invariably adds the finishing touches to that physician's culpability. Two such cases that fell into my hands during the past year when I was county physician here are noteworthy, since in neither case had the physician who gave such advice even made an examination of the chest.

Each winter the Associated Charities of this city is swamped with such a class of patients and the county hospital is filled with them, and our potter's field is a veritable monument to the guilt of all practitioners who are guilty of such malpractice.

The eastern physician will naturally ask what is to be done for his patients in advanced stages if he can not order a change of climate. Each community must solve this question for itself, and many of them are doing so, but the duty of the physician in charge of such a case is plain. He should carefully acquaint himself with the stage and probable course of the disease, and in prognosticating the outcome he should never lose sight of the social and financial condition of the patient; before sending a patient into a new community he should know how he is to be received there; under what social conditions he is to live; how the requirements as regards rest and food can be and will be carried out; and if all these are not in the highest degree favorable a change of climate—which is a minor consideration—should never be recommended. The doctor should honestly, firmly and courageously meet the conditions as they exist. *If these are hopeless he should gently ease his patient's pathway into the grave and not deliberately shirk his duty by shipping the patient across the continent to die away from the solicitous care of friends and loving ministrations of a family.*

23 East Adams Street.

Otitis Media Following Varicella.—M. Jacod states that nineteen cases are now on record; in three out of five cases in his own experience there were pre-existing lesions in the nose or pharynx. The ear affection caused by varicella is not so serious as from diphtheria or scarlet fever and rapid recovery is the rule under proper treatment. The geatest care is necessary in the hospital to ward off mixed infection in varicella. His study of the subject is published in the *Revue Hebd. de Laryngologie*, J

SPELLING AS AN INDEX TO THE PREPARATION OF THE MEDICAL STUDENT

GEORGE DOCK, M.D.
NEW ORLEANS

For many years I have collected certain data bearing on the preliminary education of medical students. From these I have formed some conclusions, and believe that the data, as well as the conclusions, will be of interest not only to medical educators, but to those in other departments of universities, for I do not think that the students whose work I now criticize are the only ones of the kind in their respective classes. I hope that teachers of high schools, and those of lower grades, will also be interested in the following observations, but I hasten to add that I have no intention of suggesting that the results I shall set forth indicate a universal or even widespread condition among the output of secondary schools. My observations have been too scattered to permit such a conclusion, even if I had a desire to draw one. At the same time I think that the examples I submit might profitably lead to a general inquiry, by those in a position to make it, bearing on that point.

My observations have been made chiefly in examination books of medical students in their third year. All had high-school diplomas or their equivalent; a few had college degrees. The proportion of the latter is too small to permit a strict comparison, but suggests the question whether the college degree really indicates sound scholarship, when it is taken after such training as appears in the other candidates. I am prepared for the assertion that one should not expect perfect orthography and English in examination books. I not only realize the certainty of error from haste, preoccupation and confusion, but hope to show how I exclude most of the mistakes of that kind in my present task. I also hasten to meet the assertion as to incorrigible bad spellers—of the errors often looked on by the perpetrators and their admirers as evidences of lofty intellectual quality. There may be such, but I have a conviction that genuine examples of "natural bad spellers" are extremely rare, and that the real cause is almost always poor training. I have seen some of the worst spellers, under the persuasive influence of a "condition," become almost perfect in less than a year. If this can be done in the crowded medical course, it can be done much more easily earlier in school life—if the conviction and willingness to try are only present.

In the case of the people with whom I am now concerned I may add that as the result of what might be called preliminary observations, attention was called, in the beginning of each course, to the importance of English and spelling in the future papers. Moreover, I spent some time in the beginning pointing out the difficulties to be encountered, the value of accurate knowledge of technical terms, the necessity of the dictionary, and other preliminary matters.

EXCUSABLE AND INEXCUSABLE ERRORS

In my criticism I pay no attention to mistakes that can easily be explained by slips of the pen or the mind, such as "apetite," "aposite," confusion of "ei" and "ie," of single or double e and other double letters. In an otherwise good paper I do not note such a mistake as "crysis," after the example of "lysis," "anophales" for "anopheles," "ridig" for "rigid," or "appendicitis" with one p. An isolated phonetic spelling I also overlook, giving the writer credit for being serious. A mild but earnest spelling reformer myself, I look on the writer of "brest" or "rist" as not necessarily more ignorant or careless but perhaps bolder than I, who leave out the "ue" in "catalog" and the other l in "dulness." If some similar examples occur in the list of unexcusable errors, it should be understood they were associated with what I consider indubitable examples of the latter.

In most of the examples I cite I think it will be admitted that temporary causes are not obviously concerned. Many of the words are technical terms, first used, if not first learned, in the study of medicine. With proper methods of study the student should become familiar with them, so that in an examination he would be not at all in the position of a pupil in a spelling match who encounters a "hard" word like "phthisis" or "Brown-Séquard." Many involve the question of single or double letters, and so may seem excusable, but in those I have selected I do not think this a valid excuse. Finally, the mistakes are not rare or isolated, but occur in some books in every class, and to an extent shown numerically below.

The most flagrant examples are the following:

"Aery" for "area,"
"Aglutinate,"
"Ajacent,"
"Anamil,"
"Antisceptic,"
"Arrises,"
"Arrose,"
"Billiary,"
"Bowals,"
"Bowles,"
"Buldging,"
"Chrisis,"
"Conjenital,"
"Corpussule,"
"Coriza," "cariza,"
"Cracentic," "crescentric," "cresentric,"
"Dichrotic" for "dicrotic,"
"Dycrotic," "diacrotic,"
"Diarrhoeah,"
"Dispnoea," "dyspanœa,"
"Dissease," "decease" for "disease,"
"Desquimation,"
"Dissapear,"
"Ellicited,"
"Effected" for "affected,"
"Elyptical,
"Excellerated,"
"Epidurmus,"
"Empyemia" for "empyema,"
"Aevisto" for "estivo,"
"Feal," "fealt,"
"Fassetted,"
"Fourty,"
"Hepitization,"
"Insiduous," "insideous,"
"Immaciation,"
"Inflaimed."
"Indivigual."
"Irruption" for "eruption,"
"Iscolation,"
"Epicac,"
"Larangeal," "larnyx,"
"Lacramation,"
"Lanciolatus,"
"Measels,"
"Movvable,"
"Nausia,"
"Omebic,"
"Oposthotonus,"
"Puss,"
"Pilorus,"
"Peticular" for "petechial,"
"Phthysis,"
"Papulary," "papularry" for "papillary,"
"Simptom," "symtom,"
"Stridilous,"
"Suddon,"
"Scarlitinal,"
"Sturnum,"
"Skyograph,"
"Tetnas,"
"Traecheal," "trachial,"
"Tonsalitis,"
"Tempiture," "temprature,"
"Tubercules,"
"Turpid" for "turbid,"
"Umbillicated,"
"Ulseration,"
"Vacanation,"
"Varacella," "vericella,"
"Veriola,"
"Vareloid,"
"Ventillated."

SPELLING OF PROPER NAMES

Not less suggestive are certain errors in the spelling of proper names; and in this connection I must point out that in the most striking examples the names are not difficult to memorize. Moreover, all are encountered in reading that is supposed to be required; they are frequently written on the blackboard during the first two years or the second year. From the results, especially "Hotchins," "Laverent," and the modifications of "Kernig," "Koplik," "Oppler" and "Boas" one might receive the impression that the student had no opportunity to learn the words except by hearing them, and that in an imperfect way.

"Clebs" for "Klebs," "Hotchins" for "Hodgkins," "Lavarent" for "Laveran;" "Koenig," "König," "Konig" for "Kernig," "Lefler," "Loefler" for "Loeffler;" "Oplar," "Opeler," "Upler" for "Oppler;" "Bowas," "Boos" for "Boas;" "Wachselbaum" for "Weichselbaum;" "Pyer," "pyer" for "Peyer." For "Widal": "Widall," "Weidal," "Weidall," "Wedol," "Widol," "Wiedal." For "Koplik": "Koplic," "Koplick," "Coplick," "Caplex," "Koplig," "Kopligk," "Kolpig," "Koeplik," "Köplik," "Poplik."

Certain words I have used as indices to classes, especially words that must be used in every examination. The most conspicuous of these are "crescentic," misspelled by 8 to 10 per cent. of each class; "measles," misspelled by a proportion almost as large. Among proper names the phonetic "Koplik" has been misspelled by most classes with a striking degree of uniformity—10.5 to 10.8 per cent., but the class of 1908 raised the proportion to 16.6 per cent.

Examples of the collected errors of individuals are interesting, and I give a few:

1. (an A.B.): "Afasia," "effected" for "affected" (many times), "basular," "feberil," "paracite," "parisite," "disapear," "quartian," "irruption" for "eruption," "motal," "sight" for "site."

2. "Bowals," "feal," "eary" for "area," "bace" for "base," "membrain," "pustual," "tungue," "persperation," "crescentric," "palet" for "palate," "cript" for "crypt," "friabil," "extream," "pilaris," "alveoliar," "cheak."

3. "Cresentic," "dissease," "postular," "vessicle," "broncophony," "fluroscope," "untill," "stoped," "rappid," "controll," "delerium," "medistinal."

In the criticism of the language of examination papers it is easy to go to extremes, but I submit a few examples to show that some mistakes occur that do not reflect credit on the preliminary training of the writers:

"A sequelae of," "quiet constant," "looses" for loses," "dye from poison," "who's health," "aloud to dry," "pulse are rapid." "temperature raises," "gastritis of stomach," "ventricule of stomach," "larangeal scope" for "laryngoscope," "a protozoa," "equitable climate," "lied down," "plumb colored."

THE CAUSE

I think there is a close relation between such mistakes as I have submitted and imperfect technical training in other respects. I never have found it necessary to condition a student for bad spelling or English; the technical matter is always faulty in such cases. Almost without exception, the student who writes "cracentic" or "crescentric" does not understand the real characteristics of a "crescentic" eruption; the one who writes "Koplik" as given above never knows when and where "Koplik's spots" occur, how they look or what they signify. It is not from a love of preciosity that I call attention to the matter, but because it reveals faulty training that must be undesirable in other lines than medicine. As a matter of propriety, however, I think such examples as I have given are unworthy of candidates for a profession still called learned. Physicians who should make such blunders will be made to feel ashamed, or will be looked on with condescension by educated men and women.

The causes of the condition I think are chiefly the following: (1) imperfect training in the precollegiate or preuniversity years; (2) imperfect scrutiny of candidates for admission to the medical school; (3) looseness with reference to scholarly fitness all through the medical course. It is not enough to dismiss the first reason, poor primary and secondary education, as we often do, as if it were inevitable. I am aware of the complexity and difficulty of the subject, but I venture to say that if all university departments insisted on better preparation, the standards in the lower schools would rapidly be raised.

The need for more careful investigation of entrance credentials is so well known that I shall not discuss it, but mention one of the reasons often given for the existing imperfection, that is, that the public is unwilling to support properly educated graduates, or, in the case of universities supported by states; that the tax-payers wish their children to get through as easily as possible. Risking the accusation of demagogism, I question the accuracy of such replies. Tax-payers and students are never consulted as to standards. Their information on such matters is conveyed chiefly by announcements and catalogues, and at functions like commencements. In the former and at the latter the perfection and superiority of the school are enlarged on with as much eloquence as the writers and speakers can command. Tax-payers and parents, as well as students, who often make great material sacrifices and would willingly make more, not only want the best, but think that they are getting it. But even if they did not want the best there could be no justification for a university to yield to a betrayal of its trust.

The fact that my observations were made in the cases of students who had been in a university two full years shows the need of more care in regard to scholarship even in technical or bread-winning courses. The capable should be stimulated to better work, the incapable removed from the school before there has been an undue loss of time on the part of teachers and fellow students. The present neglect of such efforts is often reflected in an obvious impatience when a fault in preliminary training is pointed out. The study habit, the effort for improvement, has not been acquired. In correcting, as kindly as possible, the annual blunder of pulse as a plural I have been told that the perpetrator "did not come to learn English." One of my colleagues relates an instructive experience. Pronouncing several times without the desired result a word the undergraduate called "larnyx," he finally said that the proper pronunciation was "larynx." "Well, then, larynx, as you call it," was the reply.

The present movement for raising entrance requirements may be expected to change these things, but I think and beg to urge that a more definite and continued effort will be necessary.

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Clinical Notes

MUSCULAR SPASM DUE TO MUSCULAR EXERTION IN A HEATED ATMOSPHERE

TREATMENT BY APOMORPHIN

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During the past six years I have observed this condition frequently in employés of the American Sheet Steel Company, and in one instance in an employé of the West Leechburg Steel Company. In these mills the twenty-four hours are divided into three periods of eight hours each and are known as the morning, day and evening "turns." The "morning turn" begins at 12 midnight and ends at 8 a. m.; the "day turn" begins at 8 a. m. and ends at 4 p. m.; the "evening turn" begins at 4 p. m. and ends at midnight. The men work morning turn one week, day turn the next, and evening turn the next; they, therefore, can not form any regular habits in regard to eating or sleeping. While at work they are constantly employed, during the eight hours, and have but a moment now and then to eat a mouthful. The heat is intense, as large sheets of red hot iron are being passed to and fro continually. The active exercise together with the heat causes a profuse perspiration, so profuse that the men remove their shirts and wring the perspiration from them in a stream as though they had been dipped in water. In order to make up for this great loss of fluid caused by such free perspiration great quantities of water are consumed, sometimes several gallons during the eight-hour period.

There seems to be a special susceptibility to these cramps in certain individuals, as some men will work from ten to twenty years without an attack, while others have them almost every hot day. The condition is rare in the winter months, but during the first warm days of spring, especially if the atmosphere be moist, cases are apt to occur. Chronic alcoholism seems to bear no relation to the attacks; several patients were total abstainers. It is a notorious fact that iron mill workers use alcohol, chiefly beer, to excess.

The two chief factors in the production of the condition are muscular exertion and heat. Men whose work is light, even though subjected to the same temperature as the others, do not develop the symptoms. If for some reason a susceptible man does not get his accustomed rest between "turns" he is likely to develop the condition much earlier in his "turn" than if he had secured the usual amount of rest; in fact, anything that lowers the vitality in a susceptible individual increases the chances of an attack. Humidity of the atmosphere bears some relation to the condition, as attacks are more frequent on sultry days at a temperature much below that required to produce the same effect when the air is dry.

The patient will frequently state that he was not feeling so well as usual when he went to work and that more effort was required to keep up with his duties. He may complain that he was unable to perspire, or that the perspiration, profuse for a time, became more scanty or even ceased to be perceptible.

Gradually involuntary spasmodic contractions of certain groups of muscles occur. The flexors of the fingers as a rule are affected first; these cramps occur every few minutes. In other cases the smaller muscles will remain unaffected and the larger ones of the arms or legs or even those of the abdominal wall develop the condition. Sometimes many muscles or groups of muscles are affected at one and the same time, at other times one muscle after another becomes cramped. If untreated the contraction lasts from one to three minutes, when it gradually relaxes. The beginning of the cramp is usually ushered in by a few feeble twitchings of the muscles about to be affected; these occur long enough before the general spasm for the patient to know that a cramp is coming on. A cool breeze or a sudden jarring of the bed is often sufficient to throw the affected muscles into contraction. There seems to be a predilection for certain groups of muscles in certain individuals; the group or groups of muscles affected in the first attack are likely to be the ones affected in succeeding attacks. As the condition improves the individual cramps are of shorter duration and further apart.

In a well-developed case the cramps may occur every two or three minutes; later they may be five or ten minutes apart, and finally a few faint contractions may occur at intervals of half an hour. The pain during the cramp seems to be severe; I have often had patients tell me that they would rather die than go through another attack. The pupils dilate with each cramp. The pulse as a rule is normal, but in some cases may be slightly accelerated, rarely being over a 100. The skin is often clammy, sometimes dry; when perspiration becomes free the patient improves. The patient seldom vomits, even though the abdominal muscles be involved.

If a leg or an arm is allowed to become flexed by a cramp a large amount of force is required to extend it; not so much force is required to prevent flexion. After an attack the patient feels stiff and sore; but even after a severe attack lasting four or five hours he will be able to return to work at the end of forty-eight hours. The muscles appear to be abnormally strong in these attacks. It is not uncommon to see a patient on his back on the floor and from six to eight of his fellow workmen beside him and putting forth considerable effort to keep his muscles from contracting. I recollect one case in which I volunteered to hold the right arm of a patient during the cramp. I got the arm near the edge of the bed and exerted all my force to keep it in an extended position, using my weight as an aid, but was unable to prevent the flexion. This patient did not weigh more than 140 pounds and was but 19 years old. A sharp slap or two, with the open hand, over the affected muscle will usually produce immediate relaxation. This effect is so well known about the mills and the method is applied so vigorously that the patient is often so pummeled by his associates as to present the evidences of his treatment for several weeks after an attack. In a certain number of cases the patients have finished their "turn" and have been attacked on their way home from work; in still others the cramps do not develop until the patient has reached home, changed his clothing and, to a certain extent, cooled off. It is the rule for these men to sweat freely for several hours after they have completed their work, and as a rule they do not cramp until this free perspiration ceases.

The attacks vary greatly in severity. In some cases only a few muscles are affected; in others a number of groups. An untreated case may last from one to fifteen hours. I have never heard of a case resulting fatally, but have had several patients who were so susceptible that they thought it advisable to change their occupation.

In the treatment of the condition morphin has been used probably to a greater extent than any other drug. To a certain extent it relieves the pain, but has little or no effect in cutting short the attack. I have given as many as three quarter-grain doses, hypodermically, within two hours. Even with this dosage the symptoms continued for several hours. Hot packs are more effective. Some mills are provided with an emergency room where hot water and woolen blankets are provided, and when a patient develops cramps he is taken immediately to this room, stripped and wrapped in a hot blanket. These are changed frequently and usually, after an interval varying from fifteen minutes to half an hour, the cramps become less severe. In all attacks an effort is made to keep the part affected in extension, as in this position the pain is less severe. If the muscles of the hands and feet are the only ones affected, the affected part can be placed in hot water and kept there for several hours. If this treatment is discontinued too soon the cramps are likely to return.

Apomorphin in doses varying from 1/12 to 1/20 grain will produce immediate relaxation. As a rule the emetic action is prompt and is followed by marked prostration. In the first cases treated with this drug the larger dose was used, but later I found that the smaller dose would entirely control the cramps, and in some instances did not produce any marked emetic effect. When the prostration is marked it usually lasts from five to eight hours. As has been mentioned before, a cramp in an individual muscle may be made to relax by a sharp slap over the affected muscle, but the relief is only temporary. The best treatment is probably to treat the milder cases with hot water or hot packs on account of the prostration following the use of apomorphin, but in all severe cases apomorphin should be given and followed by strychnin, 1/30 grain every four hours.

I have treated between fifty and sixty attacks of these cramps in twenty-four or twenty-five individuals. Of these one patient has been observed in ten different attacks extending over a period of three years. A number of men have been treated in but one attack. A brief account of a few of these cases will be given:

CASE 1.—E. K., aged 18, single, American, worked a turn one very sultry morning. He had probably walked about a quarter of a mile on the way home from work when cramps began in the legs. He was carried into a near-by saloon. This occurred about 8:30 o'clock. I saw him at 9 o'clock, and found him lying on the floor with six or eight of his fellow workmen holding his arms and legs *in extension*. When the cramps came on, which was every two or three minutes, they would strike the offending muscles with their fists, to produce relaxation. Several blankets and coats were wrapped around the patient. I gave him ¼ grain morphin hypodermically, which somewhat relieved the pain. At the end of half an hour the cramps had not diminished in frequency, and I repeated the dose of morphin. At the end of two hours the cramps had diminished both in frequency and severity, and the patient was taken home on a stretcher. He was put to bed and warm blankets applied. About 2 p. m. the cramps had entirely disappeared. I saw the man the next day and found him feeling well; there was a little soreness in the muscles but not more than one would expect from the treatment of his fellow workmen. He went to work the next day, thus losing but one turn.

I attended this patient in nine subsequent attacks covering a period of three years. In regard to the muscles affected, the attacks were very similar to the first. In one attack I gave him ¼ grain morphin and followed it by the administration of chloroform. I kept the chloroform up for twenty minutes. When he recovered from the anesthetic the cramps had disappeared. In another attack, which came on about 6 p. m., I gave the usual dose of morphin and followed it with about 3 ounces of whisky every hour for four doses. The cramps gradually disappeared and were completely gone by midnight. The patient became somewhat intoxicated. In the last attack in which I had the opportunity to treat him I gave him 1/16 grain of apomorphin; vomiting occurred in ninety seconds. The cramps ceased immediately. His pulse varied in the different attacks, but was usually between 80 and 90 before the treatment; sometimes it went up to 120 near the end of the attack.

CASE 2.—J. F. C., aged 42, single, American, has worked in an iron mill the greater part of the time for the past twenty years. He is not addicted to the use of alcohol or tobacco. He served as a soldier during the late Spanish-American war. There is no evidence or history of lues. He was working evening turn at the time of this attack. He had been at work about two hours when he noticed cramps in the muscles of his fingers. He worked about ten minutes longer when cramps developed in the muscles of his legs and arms. He fell to the floor and his fellow workmen carried him to the emergency room, where I saw him about fifteen minutes later. Pulse was 84, skin moist and clammy. The smaller as well as the larger groups of muscles of both upper and lower extremities were affected. The various muscles were not affected simultaneously but at different times so that the patient had no interval during which he was entirely free from the cramp. He continually cried out with pain and begged me to give him relief; 1/12 grain apomorphin was given hypodermically; the cramps ceased immediately. In about two minutes he began to vomit and to sweat profusely. In two hours he was taken home in a buggy and was able to return to work three days later.

This man gives a history of having had attacks of greater or less severity at intervals during the past fifteen years. All attacks, except the one here described, lasted from two to six hours.

Case 3.—J. W., aged 44, married, American, has been a mill worker for fourteen years. He uses alcohol to excess at times. He has had four or five previous attacks of cramp. He completed the usual eight-hour turn and walked home, a distance of about one-half mile, when the cramps came on in the large muscles of the arms, legs and trunk. I arrived a few minutes later and found the man on the floor. He was a large, muscular man, weighing over 200 pounds, and when the cramps came on they were something terrific. I gave him 1/12 grain of apomorphin, which produced immediate relaxation followed by vomiting. He was able to return to work the next day, thus not losing any time.

Case 4.—C. S., aged 21, single, American, has worked in mill for past five years. He never had cramps before. He takes an occasional glass of beer. He went to work at 4 p. m. on a hot, sultry evening. About 7:30 he noticed an occasional cramp in the muscles of the arms; these gradually became worse until 8 o'clock, when he had to stop work. A few minutes later they were so severe that he was taken to the emergency room and hot blankets applied. I saw him about 9 o'clock, when he was having cramps every three or four minutes. The flexors of the arms and legs were the only muscles affected. He received 1/20 grain apomorphin. No more cramps developed. In three or four minutes he broke out in a profuse perspiration. No vomiting occurred. An hour later he was able to walk home and returned to work the next evening.

Case 5.—G. B., aged 32, single, Hungarian, is an employé of the West Leechburg Steel Company. He has been in this country about nine months. He had worked his usual period of ten hours, returned to his boarding house, and finished eating his supper before very severe cramps in muscles of legs, arms and abdomen developed. He screamed each time a spasm developed. The pain seemed to be most severe at the beginning of the cramp, and not more than a minute intervened between the individual cramps. I gave him 1/12 grain of apomorphin. The cramps ceased, but there was great prostration for five or six hours. This man went to work the next day. This is the only case that I have observed in a person of foreign birth, although there are many foreigners working under the same conditions that seem sufficient to produce the muscular cramp in a native-born American.

DARNING-NEEDLE EXTRACTED FROM THE EPIGASTRIUM OF AN INFANT

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Patient.—Baby H., a well-nourished, breast-fed child, 10 weeks old, had always been healthy and good-natured until about Feb. 10, 1909. At this date the mother noticed a slight change in the baby's disposition; also that some positions caused discomfort or pain. No cause was apparent; the bodily functions continued normal. On February 17 I was called.

Examination.—Over the epigastrium was a localized erythema and a slight prominence an inch above and to the left of the navel. A hard, pointed object, apparently projecting from the stomach, was perceptible on palpation, and a diagnosis was made of the presence of a foreign body—a pin or a needle.

Operation.—A slight skin incision over the prominence revealed the point of a needle, which was easily extracted with the forceps. It was a darning-needle, one and three-quarters of an inch long.

The swallowing of pins, needles, etc., by babies is not rare, but such a case in an infant so young is unprecedented in my experience. I can account for it only by supposing that the needle had been stuck in the mother's dress and had slipped into the baby's mouth during nursing.

A FIBROID TUMOR OF THE UTERUS

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At this time, when there is a discussion as to the advisability of removing the "symptomless fibroid," it may not be inopportune to report the following case:

History.—The patient, Miss D. M., aged 46, came under my care at the St. Francis Hospital on Dec. 28, 1907. Her menstruation had been established at seventeen and had been regular every four weeks with a scanty flow of one or two days' duration. She had some pain the day before each menstrual period. On Dec. 16, 1907, she was taken with pain in the lower abdomen and with difficult and frequent urination. She had a temperature of 102, pulse 100. She complained of an intense pelvic soreness. This was the first sickness she had had for eighteen years. Her menstrual period began the next day, December 17, and lasted one day with a very scanty flow. On December 18 the soreness began to subside and on December 20 the temperature became normal.

Examination.—This revealed a hard, symmetrical fixed mass in the lower central abdomen, and a diagnosis was made of fibroid tumor of the uterus. The patient had not been aware of any enlargement in the lower abdomen.

First Operation.—On Jan. 2, 1908, a non-continuous longitudinal median incision was made above the symphysis and the omentum and intestines were seen to be closely adherent to the tumor mass. When the adhesions were separated and the tumor delivered through the incision it was seen to be a large fibroid of the uterus which had became so tightly twisted on its pedicle that the circulation was cut off and the tumor was of the greenish-yellow color of gangrene. The pedicle was clamped and the tumor removed. The uterus contained a large number of smaller fibroids, so a supravaginal hysterectomy was done. All raw surfaces in the pelvis were covered with peritoneum. There were so many abraded places on the intestines due to the adhesions to the tumor that no attempt was made to do anything to them. The patient's recovery was uneventful.

In June, 1908, she had an attack which resembled obstruction of the bowels, but the family succeeded in relieving it. On Oct. 29, 1908, her bowels became obstructed again. On October 30 she began to vomit. On October 31 she began to vomit fecal matter and was placed on the train and brought to the St. Francis Hospital.

Second Operation.—An incision was made around the old scar. There were no adhesions to the floor of the pelvis. Several coils of small intestine were found adhered to each other. The cecum had slipped through a loop formed by two coils of small intestine which were densely adhered together. The cecum was greatly distended because of the pressure at its distal portion by the tight loop, and it in turn pressed tightly against one of the limbs of the loop. The small intestine above this compressed limb was greatly distended and had a few small dark-colored spots on its surface. The adhesions were separated and the cecum released. As the obstruction had been relieved it was thought that the intestine might regain its vitality. The patient was put to bed, and two hours afterward her pulse became very rapid, she grew cold, and died six hours after the operation.

It was very evident that the abraded surfaces left on the intestine by the separation of the adhesions to the gangrenous fibroid had become adherent to each other and thus formed the adventitious opening through which the cecum had slipped.

Is it assuming too much if one concludes that if the fibroid had been discovered and removed before it became twisted on its pedicle the patient might be alive to-day?

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ATROPIN POISONING IN A CASE OF INTERSTITIAL KERATITIS

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In the literature to which I have access it is stated that poisonous symptoms rarely occur with the instillation of 1 per cent. solution of atropin sulphate.

Patient.—A boy, aged 8, blond, fairly well developed and nourished, had been under treatment for interstitial keratitis since November, 1908. This was complicated with a posterior synechia in the left eye. Treatment consisted of instillations of one drop of a 1 per cent. solution of atropin sulphate five times daily with the administration of biniodid of mercury and potassium iodid internally. Six weeks ago the instillations were reduced to one drop three times daily. The general health and sight were improving.

Poisoning.—On Feb. 25, 1909, I was called at noon and told that the boy was acting very queerly. It was also stated that there was muscular incoordination of both lower extremities and that articulation was difficult and incoherent. I saw him within an hour after these symptoms began. Rectal temperature was 98.2 F., pulse 104 and respirations 22. The pupils were widely dilated from the instillations of atropin, the face was flushed, the lips dry, the tongue moist, the throat dry, but normal in color, the mucous membrane of the nose dry, no nausea or vomiting. There was considerable mental excitement with illusions, delusions and hallucinations. The patient seemed to become momentarily rational at times. During these rational moments he would protrude his tongue when asked and also stated that nothing pained him. Reflexes were exaggerated. The patient refused to take anything to drink. A tepid sponge bath was ordered and an enema given. The patient passed a small unformed stool and about a half pint of amber-colored urine which contained no albumin. The diagnosis of atropin poisoning was made and all medication discontinued. Six hours later the only change noticed was decidedly clearer articulation. The patient had passed a large quantity of urine during this time. Chloral and bromid were administered and about 10 p. m. the patient passed off into a normal sleep, not awakening until 7 a. m. the next morning, perfectly rational, with a good appetite and anxious to be up and at play.

DYSPNEA AND URTICARIA FOLLOWING INJECTION OF ANTITOXIN IN DIPHTHERIA

J. H. BACON, M.D., and WRIGHT C. WILLIAMS, M.D.
PEORIA, ILL.

Patient.—On Sept. 20, 1908, a young man of 28 presented himself complaining of a sore throat and giving the history of exposure to diphtheria three days previously. An examination of the throat showed a typical membrane on the right tonsil, a culture from which gave the Klebs-Loeffler bacillus. Externally the throat was tender to pressure and the cervical lymph glands were enlarged. The patient was nervous; temperature 100 F. and pulse 95. The examination was otherwise negative.

Reaction from Antitoxin.—At 11:30 a. m. 2000 units of antitoxin were injected in the back with no especial discomfort to the patient. In about ten minutes the patient became restless, the face cyanotic and the respirations difficult. Gradually the respiratory distress became marked, the patient lying in a slightly raised position, with head extended, face cyanotic, expression agonized, nostrils dilated, the body limp and covered with cold sweat—the picture of suffocation. The pulse was rapid and weak, 120 a minute; the respirations were noisy, 30 to the minute. A hypodermic injection of morphin, gr. 1/4, and atropin, gr. 1/150, was administered. A cold towel was applied to the head, the extremities were rubbed and the patient fanned. After twenty minutes the urgent dyspnea gradually left and a fine general urticarial rash was noticed. This rash was white and raised, itched only slightly and persisted for four hours. When the patient could be moved he was taken home and put to bed.

Treatment for Reaction.—As it was feared that another injection might be necessary, the dry antitoxin was telegraphed for, and calcium lactate given by mouth every two hours in 5-grain doses. A gargle of hydrogen peroxid was ordered and strychnin, gr. 1/40, was given every four hours. A few drops of antitoxin were dropped into the nostrils every hour, in the hope that some might be absorbed and retained. At 11 p. m. the patient experienced a slight attack of dyspnea, which was readily controlled by morphin and atropin by mouth. In the morning the membrane had increased, covering parts of both tonsils, and the patient's general condition was not so good. After waiting several hours, the dry antitoxin not arriving and the patient's condition growing worse, we thought best to renew the injection in the hope that the calcium lactate would control the unfavorable action of the antitoxin. A hypodermic injection of morphin, gr. 1/8, and atropin, gr. 1/150, was administered and a few minutes later, at 3 p. m., the injection of antitoxin was begun. In the next twenty minutes 4000 units of antitoxin was given; then the patient again became restless and cyanotic, the difficulty of breathing reappearing as on the previous day, though with hardly the same severity. A second hypodermic injection of morphin, gr. 1/8, with strychnin, gr. 1/40, was administered. The urgent dyspnea lasted about fifteen minutes, and as the patient's breathing became easier the urticaria returned. This time also it was general and white but the wheals were larger, persisting for twenty-four hours and the itching was marked. The next morning the throat was nearly clear. The recovery was complete and uneventful. At no time in the disease did the temperature go above 101.5 F. and the pulse ranged between 90 and 110 except in the dyspneic attacks, when it was about 120.

History.—Later a history was obtained of attacks resembling hay fever when the patient was around horses, especially when they were sweating. These attacks began by itching of the eyelids, and a feeling of rawness in the nose, and were followed by a coryza, which persisted for about two hours. The attacks were so oppressive that the patient always avoided a livery stable. During previous years he had had several asthmatic attacks not at all associated with hay fever. Since these injections of antitoxin the attacks of asthma have disappeared. The patient had received hypodermic injections of morphin previously, so that was not the cause of the urticaria. The association of dyspnea from the use of horse serum and the attacks of something resembling hay fever from the odor of horses is at least an interesting coincidence, if not showing a causal relationship.

One might be censured for administering the second dose of antitoxin when the first was so fraught with danger; but at that time it was regarded as the less of the two dangers. So far as an opinion can be formed from one case, it seems that the calcium lactate lessened the bad effects of the serum, which were lighter and of less duration after its administration, although twice as much of the serum was given. Sixty grams were administered between attacks.

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THE RESPIRATORY RATIO: A PRELIMINARY NOTE

C. M. COOPER, M.B.
SAN FRANCISCO

The respiratory ratio which I wish to describe is obtained as follows: The patient is told to take a deep breath and to hold it as long as he can. He is further instructed to raise his hand when he feels that he must expire. Some little time (five minutes) is then spent in the ordinary examination; then the patient is told to expire fully and not to breathe in till he is compelled to do so, when he again must raise his hand. The time from the beginning of either of these phases of respiration to the time of raising the hand is noted and the ratio thus obtained.

The period during which the breath has been held in full inspiration by healthy individuals has varied from 40 to 70 seconds. The period during which the breath has been held in full expiration in the same individuals has varied from 20 to 35 seconds. The first term of the respiratory ratio then varies from 40 to 70 and the second from 20 to 35.

It seemed likely that we might expect departures from the normal in different directions according to the lesion present.

In individuals with a narrowing of the field of cardiac response due to cardiovascular lesions we might expect a shortening of each period, the ratio, however, being more or less maintained. This has been borne out in clinic patients with valvular lesions, myocardial insufficiency and aneurisms whom I have investigated, the time ratio reading about 25:15.

A paradoxical respiratory time ratio would seem to be likely to occur in the following classes of patients:

1. In patients with paralysis or paresis of the muscles of inspiration, since the maintenance of the inspiratory position is a muscular act.

2. In patients in whom pathologic lung conditions have led to changes which increase during sustained inspiration the resistance to the pulmonary circulation beyond the limit of response of the right ventricle, or which lead to a considerable reduction of the quantity of fresh air taken in during the inspiratory act. Two asthmatics who came to the clinic during the period of almost complete abeyance of the attacks had ratios 15:25 and 20:35, respectively, both thus exhibiting considerable diminution in the period of sustained inspiration, while the period of sustained expiration was normal. One patient with a fibroid phthisis and with a rapidly-acting, partially-exhausted but not dilated heart exhibited a ratio 5:7, etc.

In three normal individuals who had taken lung gymnastics the ratios were, respectively, 90:25, 75:25 and 75:25, these ratios seeming to suggest that the increased period of sustained inspiration was probably due solely to an increased chest expansion leading to an increased air intake.

3. In patients with mediastinal and pericardial adhesions which prevent the concomitant movement of lung root and heart. One such patient exhibited a ratio of 9:25.

Naturally many variations will occur, since complicated lesions are frequently present, and naturally such a ratio should vary with the decline and improvement of the patient.

Therapeutics

SCABIES

While the diagnosis of "itch" is considered perfectly easy to make, and, having been made, the treatment is likewise considered simple and always the same, it is well pointed out by Dr. Douglas M. Montgomery, San Francisco (*California State Journal of Medicine*, February, 1909) that the diagnosis is not so simple, and that the treatment should not always be the same, and that with any treatment the itch is often difficult to eradicate.

If the burrows and the itch mite are found, of course, the diagnosis is made, but there are many cases of itch in which the burrows are difficult of discovery, and the itch mite is elusive and evades the dermal scrapings for microscopic examination. Even the itching varies with different individuals, some few being very tolerant of the irritation and thus becoming conveyors and transmitters of the disease without their personal knowledge.

Various types of skin irritation develop during the various stages of scabitic inflammation. There may be papules, vesicles, pustules and crusts. The severest itching is generally present at night, and especially on first retiring.

"The burrow or run is made by the female in the lower layers of the cornified epithelium of the skin." These burrows, or "roughened, curved furrows," occur most frequently on the anterior surfaces of the wrists and between the fingers. Sometimes these burrows are simulated by dirt-filled lines in the epidermis. The diagnosis can generally then be made by shaving off the suspected epidermis with a scalpel, then laying the epithelial slice on a slide, adding a drop of glycerin, placing a cover glass over it and examining with a low power lens. If the eggs of the itch mite, or the mite itself, are found, the diagnosis is established.

When the fingers and hands do not show signs of this infection, signs may be discovered on the elbow tips, and on the nipples in women. When there is a generalization of the disease, characteristic signs and eruptions will be seen on the hands, wrists, axillary folds, abdomen, nates, in the popliteal spaces, and more or less on the genitals.

It should not be forgotten that the itch may be present in a mixed infection; in other words, there is more or less eczema from the irritations and scratchings, there may be nodular and suppurative processes, enlarged glands and syphilitic eruptions.

The disease does not seem to be acquired in ordinary social life, but is caught mostly in bed, from individual to individual, or by sleeping in an infected bed.

Montgomery believes that the treatment generally advised for scabies is too rigorous, and declares that many of the prescriptions ordered "are more of a cure for lassitude than for the itch." The parasiticides most used in eradicating the itch are sulphur, betanaphthol, balsam of Peru, cresol and styrax.

The patient should be instructed to take a hot bath, using plenty of soap and thoroughly cleansing, perhaps with a soft nail brush, the parts where the parasites are mostly located. He should then anoint all parts of his body with the sulphur ointment prescribed, and should especially rub it into the parts most affected. This same treatment should be carried out on nine successive nights, says Montgomery. He advises during the whole course of treatment that the patient "should wear a full suit of woolen underclothing, so that the ointment, by getting into the underwear, may be returned to the skin and rubbed in with every movement of the body." Therefore he should wear the same undershirt and drawers during the whole nine days and nights of treatment, only taking them off to rub in the ointment. It would seem as though the sort of clothing would depend much on the time of year and the patient. It is frequently better to use old cotton underwear during this treatment and to change it several times during the nine days.

The official sulphur ointment contains 15 per cent. of sulphur, and is stronger than should generally be used, on account of the irritation and actual dermatitis that it may cause. Either one of the following is preferable:

℞.	gm. or c.c.		
Sulphuris loti	10	or	ʒiiss
Adipis benzoinati, ad	100		℥iii

M. et Sig.: Use externally, as directed.

℞.	gm.		
Unguenti sulphuris	50	or	
Adipis benzoinati	50		āā, ʒiss

M. et Sig.: Use externally, as directed.

In mild cases of this disease thorough bathing and cleansing of the affected parts with strong alkaline soap, rubbing and dusting the rest of the body with washed sulphur, and then dusting the sheets of the bed with this dry sulphur, may cause an eradication of the disease without the necessity, discomfort and nastiness of ointments.

Very popular in treatment of the itch to-day is the balsam of Peru. It may be used alone or combined with sulphur. Montgomery makes use of it in the following combination:

℞.	gm.		
Sulphuris precipitati	12	or	
Balsami Peruviani	12		āā, ʒiii
Adipis lanæ hydrosi	50		
Petrolati, ad	100		āā, ℥iss

M. et Sig.: Use externally, as directed.

In infants, or when there is considerable dermatitis, Montgomery uses the balsam alone, as follows:

℞.	gm.		
Balsami Peruviani	25		
Adipis lanæ hydrosi	25	or	
Petrolati	25		āā, ℥i

M. et Sig.: Use externally, as directed.

Although balsam of Peru may be painted all over the skin in full strength, it should not be forgotten that it may cause serious dermatitis. When the balsam of Peru is used alone, only a small amount is required for each application, and 10. grams (2½ drams) is sufficient to rub over the entire body. "Such an application should be made twice a day for two succeeding days, and the patient should neither bathe nor change his underclothing for four or five more days, after which a bath is taken." The undergarments used with the balsam of Peru treatment must be thrown away, as they can not be cleansed.

If it is deemed best not to use sulphur or balsam of Peru, styrax may be used as follows:

℞.	gm. or c.c.		
Styracis	25		℥i
Alcoholis	10	or	fl.ʒss
Olei olivæ	65		fl.℥iiss

M. et Sig.: Use externally, as directed.

Or styrax may be combined with balsam of Peru as follows:

℞.	gm. or c.c.		
Styracis	80		℥iiss
Balsami Peruviani	20	or	ʒv
Alcoholis	15		
Glycerini	15		āā, fl.℥ss

M. et Sig.: Use externally, as directed.

Also valuable as parasiticides in scabies are betanaphthol and cresol. The former may be used as follows:

℞.	gm.		
Betanaphtholis	7	or	ʒiss
Petrolati	100		℥iii

M. et Sig.: Use externally, as directed.

This ointment may be used in the same manner as are the sulphur applications.

Cresol may be used as follows:

℞.	c.c.		
Liquoris cresolis compositi	50	or	
Olei olivæ, ad	100		āā, fl.℥ii

M. et Sig.: Rub into the affected parts morning and evening.

Montgomery finds dermatitis or severe irritation is less likely to be caused when the medicament used is varied during the progress of the treatment. Therefore he often uses a sulphur and balsam of Peru ointment for three days, then a betanaphthol ointment for three days, and then, perhaps, a cresol treatment for the remainder of the time.

If dermatitis is caused he recommends the application of the following paste, viz.:

℞.	gm. or c.c.		
Acidi salicylici	1|50		gr. xx
Amyli	15	or	
Zinci oxidi	15		āā, ℥ss
Glycerini	30		fl.℥i

M. et Sig.: Apply twice a day.

As to general disinfection, Montgomery finds that boiling the patient's underclothing is sufficient. He does not believe it is necessary to disinfect the outer garments, with the exception of the gloves. These he advises should all be either burned, or, if to be used again, thoroughly dusted with powdered sulphur.

BONE TUBERCULOSIS

Dr. W. A. Tatchell (*British Med. Jour.*, Feb. 13, 1909), writing from Hankow, Central China, states that tuberculosis of the joints, bones, glands and skin is one of the most common diseases which he has to treat, and says that he has had most splendid results with the application of iodin in tuberculosis of the bones.

He operates on a tuberculous bone as usual, then he thoroughly swabs the cavity with the iodin liniment of the British Pharmacopeia. The application does not cause pain, neither does it destroy tissues as does pure carbolic acid, and granulations do not become excessive. At the first application he leaves a thin piece of gauze in the sinus, but subsequently uses no plugs or strips for drainage, as he believes they have often been responsible for chronic sinuses.

Internally he administers the following:

℞.	gm. or c.c.		
Potassii iodidi	6		ʒii
Syrupi ferri iodidi	75	or	fl.℥iii
Syrupi, ad	100		ad, fl.℥iv

M. et Sig.: A teaspoonful, in water, three times a day, after meals (best taken through a glass tube).

Linimentum iodidi of the British Pharmacopeia is made as follows:

Iodin	1¼ ounces
Iodid of potassium	½ ounce
Glycerin	¼ ounce
Rectified spirit (alcohol)	10 fluidounces

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THE TUBERCULOSIS BACILLUS AND ENVIRONMENT

Probably the most interesting declaration made at the International Congress on Tuberculosis, held in Washington, D. C., last fall, was that of the Russian surgeon general that the body of every adult over 30, even though dead from some other disease, when carefully examined, shows that at some time during life tubercle bacilli have been present. The opportunities afforded for investigation of this subject in the Russian army are very complete, and, as all sorts of men are in the army, those raised in the country as well as in the city, and all classes of the population, since army service is compulsory, the declaration would seem to be founded on indubitable evidence. Of course this statement is t new: Investigations made in Vienna over twenty years ago showed that at least three-fourths of all the bodies of individuals dead from other diseases than tuberculosis, presented evidence that the tubercle bacillus had been at some time active in the tissues. Corresponding investigations elsewhere showed similar conditions. As a consequence of these investigations, and of the older tradition of the ubiquity of tuberculosis, we have the well-known Viennese expression: *"Wir sind Alle am Ende ein bischen tuberkulös."* "We are all of us after all a little tuberculous." Formerly this seemed an exaggeration, but recently it has come to be looked on as a literal truth. The bacillus of tuberculosis succeeds in gaining implantation in the tissues of all of us at some time during the first half of life, but seven individuals out of eight are able to resist its invasion and so do not develop tuberculosis.

We have here then an important problem as to the relation of the bacillus to the conditions for its successful growth. It has long been recognized that while the bacillus of any infectious disease is the direct cause of that disease, the micro-organism will not succeed in producing the disease unless there is a predisposition on the part of the individual or at least a lack of immunity, that is, of resistive vitality. It is rather interesting to study the reasons for the power of resistance of seven-eighths of mankind. Tuberculosis is a city disease and we now know that inhalation of any irritant particles has more to do with it than almost anything else. In certain polishing trades involving the inhalation of a great deal of dust the death rate from tuberculosis is so high that it is impossible to provide a death-benefit fund in the trade, since the average term of life is so short.

There are other conditions that just as obviously predispose the individual to such physical conditions as lower the resistive vitality against tuberculosis. Most of the mill trades in which many people are associated in a single room, especially if the occupation is dusty, have the same effect. Wherever people work together closely associated with one another, crowded so that the emanations from their bodies get into the air and are not removed by ventilation, this same lowering of immunity is produced. Any of these people who acquire tuberculosis fail to resist it. For them their environment is much more important than the contagion itself, and apparently this is true for most cases of tuberculosis. It is not the natural immunity that is at fault when the disease makes rapid progress, but it is that the environment is so unfavorable that Nature is not able to exert the resistive vitality that she normally possesses.

The same thing happens if there is a constant renewal of the contagious material finding its way into the body. The statistics of Paris serve to show that laundresses who handle the clothing of the general population, containing a certain proportion of tuberculous patients, are more likely to die from tuberculosis than are other women of the same class who are not subjected to this frequent contact with tuberculous material. In London it has been noted that scrub-women, especially in large buildings, who through sputum are likely to be brought in contact often with tubercle bacilli, suffer from the disease much more than other individuals in the same station in life who live and are fed in about the same way.

It is evident, then, that the problem of the reduction of the mortality from tuberculosis is to an even greater extent a question of improving the environment in which individuals live than of reducing the contagion to which they are subjected. The bacillus is important, but not nearly so important as the predisposition and unfavorable conditions of life. This is because our natural immunity is not lessened by an unfortunate environment but is helped by the conditions in which we live, and it is only by appreciating this fact, and by laboring also to prevent the maintenance of such unfavorable conditions, that the crusade against tuberculosis will be successful.

THE ROLE OF LIPOIDS IN IMMUNIZATION

It is a long-recognized fact that the sodium chlorid solutions ordinarily used in experimental study of problems in immunity afford only an approximation to the conditions actually present in the living organism. In view of this fact, Pick and Schwarz[1] recently carried out some experiments under conditions different from the ordinary, which not only give interesting results, but are of great value in furnishing suggestions for future work. The fluids of the body, in addition to their content of inorganic salts, also contain to a considerable extent so-called lipoids, that is, substances having the general property of being soluble in the organic fat solvents. It was the rôle of these lipoids in immune processes that was investigated; the lipoids used were lecithin and alcoholic extracts of various organs and of blood constituents.

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[1] Biochem. Ztschr., 1909, 15, p. 453.

It was found that the use of a lecithin emulsion in place of sodium chlorid emulsion in the preparation of suspensions of typhoid bacilli for the purposes of inoculation produced a relatively highly agglutinative serum in a short time, even though only small amounts were injected. Further, precipitation of the organisms in such a suspension by typhoid serum occurred much more quickly and perceptibly than is the case in the agglutination reaction as ordinarily performed. Other lipoids behaved similarly to lecithin in these respects, the blood lipoids somewhat surpassing those from the organs in their effects.

While agglutination reactions were obtained in any particular instance for all the typhoid-lipoid suspensions, in each case the greatest effect was obtained with the homologous suspension. That the effect was not, even in part, owing to the presence of an antibody for the lipoid alone was shown by the peculiar fact that the serum of an animal immunized with serum lipoid alone gave a reaction with that lipoid only in the absence of typhoid bacilli.

This work has some immediate practical value because of the greater sensitiveness of the agglutination reaction as modified by Pick and Schwarz; indeed, they state that actual clinical experiment has demonstrated its sensitiveness even rather early in the disease. But aside from this, the evidence that greater response to immunization may be expected when material more closely adapted to the living organism is used may possibly lead to greater accuracy in fields already gone over by the usual methods, as well as open up avenues of investigation previously considered closed.

PREHISTORIC PATHOLOGY

When we begin to contemplate Egyptian history our ideas as to what constitutes true antiquity receive a sudden shock, for ancient Rome is to predynastic Egypt as Chicago is to the Acropolis of Athens, and a perusal of the works and monuments of the physicians of early Egyptian and Assyrian times causes Hippocrates to seem like one of our most recent graduates. Indeed, so overwhelmed is our vanity at finding that at so early a period in history there existed some really accurate practical knowledge of pathology and therapeutics that we have been perhaps too willing to render homage to antiquity, and have credited the early Egyptians with even more skill than they actually possessed. For example, it is a current belief that the Egyptians were practiced in filling teeth with gold; yet Comrie,[1] in an interesting lecture on "Medicine Among the Assyrians and Egyptians in 1500 B. C.," states that he has been unable to obtain any confirmation of this belief in spite of considerable search and inquiry. Likewise, the idea that amputations were performed by Egyptian surgeons seems to be incorrect, and indeed the very idea of the mutilation of the body was so foreign to their religious belief that this practice would seem to have been impossible.

On the other hand, they attacked tumors boldly with knife and cautery and seem to have distinguished between the various forms of tumors to no inconsiderable extent. Accounts exist in old papyri which depict clearly enough to permit of recognition certain of the diseases that were met with at that time. Several forms of intestinal parasites were known, as well as appropriate vermifuges, while the apparent prevalence of a pernicious form of anemia suggests ankylostomiasis. The existence of malignant disease, leprosy, infantile paralysis, gout, and especially of rheumatoid arthritis, has been demonstrated, while at least one mummy has been found possessed of fibrous adhesions consequent on appendicitis.

Perhaps the oldest pathologic specimen that has ever been thoroughly studied is the urinary calculus investigated and reported by Shattock.[2] This was found lying among the pelvic bones in the grave of a boy, aged 16 years, and associated findings showed that the grave was that of an individual of the predynastic period, some generations at least before the advent of the first dynastic king, about 4800 B. C. This calculus on analysis was found to have a central body composed chiefly of uric acid and urates, surrounded by a crust of phosphates, the entire stone having a diameter of 6.5 cm.

As is well known, urinary calculi are very common in Egypt in modern times, a fact which is ascribed to the frequency of infection of the urinary bladder with bilharzia, but Shattock was unable to demonstrate the presence of traces of these parasites or of their ova. Had bilharzia ova been present they could probably have been distinguished, for their chitinous covering is extremely resistant to time and solvents.

The same author has also studied one of a group of four calculi coming from a tomb of the second dynasty, and computed to be about 600 years later than the first specimen. These calculi were found lying beside the first lumbar vertebræ and are therefore assumed to be renal. The one examined was 1.6 cm. in diameter and was found to consist of calcium combined with carbonic, phosphoric and oxalic acids. In the center was a cavity containing great numbers of mould conidia, but no bilharzia ova. It would be interesting to record that these mummified moulds were found to be still living after a sleep of sixty or more centuries, but, unfortunately for romance, the plates remained sterile!

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[1] Edinburgh Med. Jour., February, 1909.
[2] Trans. Path. Soc. London, 1905, lvi, 275.

PRESIDENT TAFT AND THE PROPOSED NATIONAL BUREAU OF PUBLIC HEALTH

The fact that President Taft, during the rush incident to the first few weeks of his administration, has taken a business-like initiative in an effort to secure a satisfactory national public health policy is a comforting reassurance to the friends of that movement. This step on the part of the President can not, however, be a matter of surprise to the readers of The Journal who, from time to time, have been advised of his active interest in great sanitary and scientific problems that have come under his administrative supervision.

In the Philippines, he not only placed sanitation on a strong footing, but established original scientific investigation and general medical education on a firmer governmental foundation than obtains in any of the states. The moment that he, as Secretary of War, took charge of the affairs in the Isthmian Canal Zone, the sanitary administration was for the first time given proper status in that great undertaking. His activities in improving the conditions of the Army Medical Corps and his recent address before the University of Pennsylvania are additional evidences, not only of his general interest in these and allied subjects, but that he has intimate knowledge at first hand on all of them.

President Taft's action in approaching this question by requesting the views of the Surgeon-General of the present Public Health and Marine-Hospital Service, is in line with practical governmental methods. The whole problem must be solved from the viewpoint of the existing public-health agencies, their possible expansion and their necessary coordination. The proposed new public health bureau must be an evolution and not a *de novo* creation. It will be much better to have such an evolution come from inside rather than outside of governmental influences. And it is distinctly of the highest importance that the attitude of the existing bureaus that will be more or less affected by the change shall be determined before specific proposals are formulated.

The necessity of considering the attitude of existing bureaus is shown by the fate of the proposal, under the preceding administration, to establish a national health bureau by executive order. This constituted a distinct departure from precedent and was evidently regarded as an encroachment on the prerogatives of Congress. No bureau has ever yet been so established and the attitude of Congress indicates that such an innovation will not soon be realized. The agitation was, however, of distinct educational value. The country at large is ready for a national health bureau and will welcome it, no matter by what means it is secured.

EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS

A few weeks ago[1] we discussed the reasons why an early diagnosis was not oftener made in pulmonary tuberculosis. It seems possible that we emphasized too strongly the rôle played by the patient, judging from a recent paper by Stoll,[2] who thinks that the physician is more to blame than the patient. Stoll submitted to 150 tuberculous patients a series of questions asking how long they had been ill before consulting a physician, how long before they were properly examined, and how many months elapsed before they were told that they had tuberculosis and were instructed regarding the care of their sputum. The figures obtained showed that nearly 80 per cent. of the patients delayed over five months before consulting a physician. When they did seek medical advice 43 per cent. were not examined at the first consultation. Curiously enough the incipient cases consulted the physician earliest and were the ones most frequently examined properly at their first visit. A correct diagnosis was reached at first in only 56 per cent. of the patients, and this notwithstanding the fact that over 80 per cent. had been ill over five months. While too much dependence can not be placed on the statements made by the patients in this investigation, still the results are worthy of consideration and may be regarded as a sad commentary on the methods of many physicians. It emphasizes a statement made years ago by Weir Mitchell, in an address to medical students, that more mistakes in medicine were due to carelessness than to ignorance. We should always bear in mind that early diagnosis of pulmonary tuberculosis is not easy, and seldom possible, unless the patients are stripped and the examination is most thoroughly and carefully made.

RECENT MODIFICATIONS OF THE WASSERMANN REACTION—A CORRECTION

An unfortunate accidental error occurred in our editorial[3] designed to facilitate the clinical use of the Wassermann test for syphilis. In describing Noguchi's test, these words are used: "This means that the suspension of sheep blood corpuscles and patient's serum are all that the physician himself needs to furnish." Now the point is that no sheep corpuscles or any corpuscles other than human are needed in the test as simplified by Noguchi.

Medical News

ARKANSAS

Personal.—Dr. Leonidas Kirby, Harrison, William B. Lawrence, Batesville, and James H. Lenow, Little Rock, have been appointed members of the medical board of the University of Arkansas, to fill vacancies.

Illegal Practitioners Fined.—"Dr." Caponia, Des Arc, who was arrested March 3, on the charge of practicing medicine without a license, is said to have been fined $25 and costs.——In the case of Dr. William H. Hickson, Hot Springs, charged with violating the city ordinance prohibiting the drumming of patients, a fine of $25 is said to have been assessed against the defendant.

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[1] The Journal, Feb 20, 1909.

[2] Yale Med. Jour., March, 1909.

[3] The Journal, April 3, p. 1113.

Asks Appropriation for Tuberculosis Hospital.—The Arkansas Association for the Relief and Control of Tuberculosis, at its meeting in Little Rock, unanimously agreed to submit a bill to the legislature asking for an appropriation of $110,000 for the establishment of a tuberculosis hospital, and its maintenance for two years. The following officers were re-elected: Dr. John S. Shibley, Paris, president; Drs. William B. Lawrence, Batesville, and Henry C. Dunavant, Osceola, vice-presidents, and Dr. Maleue G. Thompson, Hot Springs, secretary-treasurer.

DELAWARE

Diphtheria Closes Schools.—There are said to be twenty or more cases of diphtheria in Lewes, and the public schools and Sunday schools have been closed.

Personal.—Dr. Peter W. Tomlinson, Wilmington, has declined reappointment as a member of the State Medical Society Examining Board.——Dr. L. August H. Bishop, Dover, has been elected jail physician of Kent county, vice Dr. Edwin S. Anderson, resigned.

Vital Statistics.—The report of Dr. Abram E. Frantz, Wilmington, secretary of the Delaware State Board of Health, shows that in the biennium ended June 30, 1908, there were 4,801 deaths, and in the same time 3,079 births and 3,810 marriages were reported.

Deaths from Tuberculosis in Wilmington.—The secretary of the board of health has prepared a statement of deaths from tuberculosis for periods of five years, which shows a steady decrease in the death rate from that disease. In 1885, there were 150 deaths out of a population of 55,800; in 1890, 165 occurred out of a population of 61,427; in 1895, 169 out of a population of 72,500; in 1900, 164 deaths were reported out of a population of 76,500; in 1905, 152 deaths occurred out of a population of 87,000; and in 1908 the same number of deaths were reported with a population of 91,500.

DISTRICT OF COLUMBIA

Fire in Medical Department.—A fire occurred March 19 in the Medical Department of George Washington University as a result of an explosion, and caused considerable damage.

Acquitted.—Dr. Patrick J. McDonald, Providence Hospital, charged with failing to report a case of smallpox, and with neglecting to detain the patient until the health department had been notified, was acquitted March 16.

Hazen Obtains License.—The District Board of Medical Supervisors has issued a license to practice medicine to Henry H. Hazen, who then dismissed his suit asking for a writ of mandamus to compel the board to grant him license to practice.

Personal.—Dr. J. H. Castle, for three years chief of the division of chemistry in the hygienic laboratory, Washington, has been elected professor of chemistry in the University of Virginia.——Dr. William C. Woodward, health officer of Washington, who has been ill for two weeks, has recovered.

Physicians of Services To Need No License.—Senator Gallinger has submitted a favorable report from the District committee on the bill to amend the act regulating medicine and surgery in the District, which allows honorably discharged surgeons of the Army, Navy and Marine Corps to practice in Washington without obtaining a license.

Resolutions Commend Dr. Wiley.—The Medical Society of the District of Columbia, at its meeting, March 17, unanimously adopted resolutions setting forth the sterling integrity, courage, persistent justice and skill and accomplishments as a chemist of Dr. Harvey W. Wiley; heartily commending and endorsing his arduous and difficult work in protecting the American people from impurities and adulterations in their food, drink and medicine, and trusting that his efforts will be generously sustained by the government, supported by the cordial sympathy of his professional colleagues and encouraged by the sincere appreciation of a grateful populace.

FLORIDA

War on Phthisis.—On March 24, the ninety-day campaign against tuberculosis in Florida closed. The work has extended throughout the state and has been prosecuted with unusual vigor by the state health department, State Federation of Women's Clubs, and other organizations.

Sanitarium Opened.—Pensacola Sanitarium was recently opened to receive patients. The institution has been incorporated with a capital stock of $20,000, and has a capacity for 22 patients. The officers are Dr. Clarence Hutchinson, president; Dr. Marion E. Quina, vice-president; Dr. William A. J. Pollock, secretary, and Dr. Frank G. Renshaw, treasurer.

Society Meetings.—Suwanee County Medical Association has elected the following officers: President, Dr. Will C. White; vice-president, Dr. Lester J. Efride, and secretary-treasurer, Dr. Thomas S. Anderson, all of Live Oak.——At a meeting held February 23, in Jacksonville, the organization of the new Duval County Antituberculosis Society was perfected, and a constitution and by-laws were adopted.——Medical societies have recently been organized in Santa Rosa and Walton counties.

GEORGIA

Tuberculosis Campaign Begins.—On March 27, the ninety-day antituberculosis campaign was opened in Atlanta. The exhibit will remain in that city until April 15.

Personal.—Dr. Louis M. Warfield, who has been practicing in St. Louis for four years, has returned to Savannah, his home town, to practice.——Dr. Newton Z. Anderson has been appointed city physician of Covington.

Object to Tuberculosis Dispensary.—Twenty-nine tenants of the Gould Building, Atlanta, have petitioned that the office and free dispensary of the Antituberculosis Association on the top floor of the building be discontinued.

Expelled from Society.—Dr. Arnold M. Rosett, Savannah, found guilty of, and serving one year's imprisonment for performing an illegal operation, is said to have been expelled from membership by the Georgia Medical Society, March 23.

Found Guilty.—In the case of Dr. Rose F. Monnish, Atlanta, charged with illegal use of the mails, the defendant is said to have been found guilty on two counts, March 24. Sentence was suspended and the defendant was released on bail of $2,000.

ILLINOIS

Sanatorium Needs More Funds.—The Chicago-Winfield Tuberculosis Sanatorium now has 20 patients, 15 of whom are being treated free. The directors have decided to open a subscription list for annual memberships, in order that the full quota of patients may be accommodated as soon as possible.

Against Tuberculosis.—At the annual meeting of the Morgan County Antituberculosis Society, held in Jacksonville March 29, an illustrated lecture on tuberculosis was delivered by Dr. James W. Pettit, Ottawa, president of the Illinois State Medical Society, Alfred T. Capps was re-elected president of the society, and Dr. Tully O. Hardesty was re-elected secretary.

Progress of Sterilization Bill.—The bill of Senator Womack to provide for the sterilization of habitual criminals and imbeciles, which is a duplicate of the Indiana sterilization bill, has been reported favorably by the judiciary committee, and ordered to a second reading. The Southern District Medical Society, Chicago, adopted resolutions, March 29, favoring sterilization.

Asks Appropriation for State Hospital.—Dr. George A. Zeller, superintendent of the Illinois General Hospital for the Insane, South Bartonville, appeared before the house committee on appropriations, March 31, and asked for an appropriation sufficient to build seven new cottages for the institution. There are now nearly 2,200 inmates and more are constantly arriving. Dr. Zeller also asked for a new dining hall for patients.

Conference on Public Health.—A conference on public health will be held at the University of Illinois, Urbana, April 19-24, under the auspices of the University of Illinois and the Illinois State Board of Health. Prof. W. T. Sedgwick of the Massachusetts Institute of Technology will deliver a series of lectures on "Science in the Service of Public Health"; Dr. T. J. Bryan, chemist of the Illinois State Food Commission, will speak April 20 on "The Relation of Pure Food to Public Health," and a special session of health officers will be held April 23 for a general discussion of problems of health in the state. This session will be opened by Dr. James A. Egan, secretary of the State Board of Health. Municipalities and villages of the state are especially invited to send their health officers to this conference.

Chicago

Interne Examination.—Of the 117 medical students who took the county civil service examination March 9 to 11, 48 attained the required standing, one of whom was a woman.

Memorial for Nicholas Senn.—At the meeting of the Nicholas Senn Club, March 29, it was proposed to erect a memorial to Dr. Senn in one of the Chicago parks. Plans were also discussed for the establishing of a memorial lectureship or for fitting up a room in the new Crerar Library in memory of Dr. Senn.

Diphtheria Rate High.—The department of health, in studying the high death rate from diphtheria, finds three major causes: First, that the doctor does not see the patient early enough; second, that he does not give enough antitoxin, and third, that in prolonged cases he does not repeat the antitoxin early enough.

IOWA

Society Meetings.—At the fifteenth annual meeting of the Southwestern Iowa Medical Association, held in Creston, February 16, Dr. Thomas M. Throckmorton, Chariton, was elected president; Dr. Homer L. Sweet, Mt. Etna, vice-president, and Dr. John W. Reynolds, Creston, secretary-treasurer. It was decided to hold the next meeting in Albia.——At the annual meeting of the Rural Mutual Medical Society of Northeastern Iowa, held at Farley, February 17, the following officers were elected: President, Dr. John Mueller, Dyersville; vice-president, Dr. Alonzo L. McNeil, Epworth; secretary, Dr. Claude B. Rogers, Earlville; and censors, Drs. Charles A. Kearney, Farley; Joseph L. Abeln, New Vienna; Emil Mueller, Dyersville; Franklin Reyner, Epworth; J. Irwin Limburg, Farley; Frank N. Schroeder, Holy Cross; Edward J. Wintenburg, Delhi; Martin E. Dittmer, Colesburg, and Salmon S. Douglas, Earlville.——At the annual meeting of the Waterloo City Medical Society, held February 17, Dr. Charles A. Waterbury was elected president; Dr. Elmer E. Dunkelburg, vice-president; Dr. DeWitt C. Huntoon, secretary, and Dr. Edwin R. Shannon, censor.

KENTUCKY

Association Changes Name.—At the February meeting of the Kentucky Antituberculosis Association, the name was changed to the Louisville Antituberculosis Association.

Forbids Distribution of Medical Samples.—The Owensboro city council has passed an ordinance forbidding the distribution from house to house of medicine samples of any sort.

Medical Property Transferred.—Formal transfer of the properties of the Kentucky School of Medicine and the Louisville Medical College to the University of Louisville was made March 20, when the deeds for both holdings were put on record. This completes the merging of the three colleges, which took place last August.

Louisville Health Statistics.—The health department of Louisville, in its annual report for the fiscal year ended Aug. 31, 1908, shows a total death rate of 39.77, or 250 fewer than for the preceding year. Tuberculosis leads the death causes with 229, and typhoid fever caused 109 deaths. During the year 3,981 births were reported. The health department urges a thorough system of school inspection and the establishment of a public abattoir.

Personal.—Dr. John M. Wells, Carlisle, has been elected secretary and health officer, and Drs. Oliver S. Kash, Moorefield, Benjamin F. Reynolds, Carlisle, and Samuel R. Fisher, Headquarters, members of the Nicholas Board of Health.——Dr. J. Thomas Wallingford and Cleon C. Owens have been elected members of the Covington Board of Health.——Dr. John Goodman, Louisville, is reported to be critically ill with septicemia.

County Issue of State Journal.—On April 15, the *Kentucky Medical Journal* will issue a mid-monthly issue to be known as the Jefferson County issue. This issue will be made up entirely of proceedings of the Jefferson County Medical Society and its sections, and will be edited by Drs. Virgil E. Simpson, Dunning S. Wilson and Henry Enos Tuley. The money required for the publication of this number has been raised by advertisements secured in and around Louisville by Louisville practitioners. The University of Louisville Department of Medicine will have a special section.

MARYLAND

Personal.—Dr. Benjamin R. Benson, Jr., Cockeysville, has been appointed assistant surgeon at the New York Lying-In Hospital.——Dr. J. Percy Wade, superintendent of the Maryland Hospital for the Insane, Catonsville, is making a trip of Europe.——The late Dr. Asa S. Linthicum, Jessups, left an estate estimated to be worth more than $100,000.

Baltimore

Smallpox in House of Correction.—A case of smallpox has developed at the House of Correction, and 700 prisoners and attendants were vaccinated March 25, as a precaution against the spread of the disease.

Hospital Opened.—The formal opening exercises of Sydenham Hospital for Infectious Diseases were held April 3. The building will accommodate 32 patients. Dr. Warren P. Morrell is in charge of the institution.

Berliner Fellowship Awarded.—The committee in charge of the Sarah Berliner Research Fellowship for Women has awarded the fellowship work $1,200 a year for two years to Miss Caroline McGill, instructor in anatomy in the University of Missouri. The fellowship is available for research in physics, chemistry or biology either in Europe or America.

Testimonial to Dr. Keirle.—A movement is on foot of a subscription testimonial volume to Dr. Nathaniel G. Keirle, director of the Pasteur Institute. The volume will contain the collected published writings of Dr. Keirle on rabies, a sketch of his life and work, and his portrait. The committee having the matter in charge is composed of Drs. Harry Friedenwald, John W. Chambers and Archibald C. Harrison.

Laennec Society Election.—At the annual meeting of the Laennec Society, March 22, Dr. H. Barton Jacobs was reelected president, and Dr. Louis Hamman, secretary. Dr. A. M. Forster, superintendent of the Eudowood Sanatorium for Consumptives, spoke on "Farming as a Healthful Diversion for Consumptives," and stated that $1,000 had been cleared at Eudowood by the sale of farm products raised by the patients during the last year, which made it possible to pay the farm hands wages for their labor.

Personal.—Drs. H. Barton Jacobs and J. Whitridge Williams have sailed for Europe.——Dr. Robert T. Miller, Jr., resident surgeon at the Johns Hopkins Hospital, has resigned, and has been succeeded by Dr. John W. Churchman. Dr. Miller was given a farewell dinner at the Baltimore Club by his associates, and will go to Europe for hospital study.——Dr. G. F. Sargent, Baltimore, has been appointed assistant physician of the Florida Hospital for the Insane, Tallahassee.——Dr. Wirt A. Duvall, Baltimore, captain and assistant surgeon of the Fourth Infantry, Maryland N. G., has resigned.

State Society Meeting.—The annual meeting of the Medical and Chirurgical Faculty of Maryland will be held in conformity with its constitution on the fourth Tuesday in April. In order to prevent any legal complications it is the intention of the officers to convene and transact the necessary business to constitute it a legal meeting, and then adjourn to May 13-15, the time selected for the dedication exercises of the new library building. On that occasion the building will be presented by Dr. Brush, the dedicatory address will be delivered by Dr. S. Weir Mitchell, and responses will be made by representatives of the New York Academy of Medicine, Boston Medical Library Association, Surgeon-General's Library, Washington, and the College of Physicians of Philadelphia. Osler Hall will be dedicated with an address by Dr. William H. Welch, and the annual dinner will be held there. The annual oration will be made by Dr. Osler. There will be presented a portrait of the late Dr. William H. Stokes, and a bronze memorial medal will be struck in commemoration of the occasion.

MICHIGAN

Bequest to Hospital.—By the will of the late Charles A. Rust, Saginaw, $25,000 is devised to the Saginaw General Hospital.

Society Elections.—The physicians of Grand Ledge have organized the Association of Grand Ledge Physicians, and have elected Dr. Ray T. Fuller, president; and Dr. Martha E. Hixon, secretary-treasurer.——The Grand Rapids Academy of Medicine, at its annual meeting February 3, elected Dr. Christian Van der Veen, president; Dr. Burton R. Corbus, vice-president; Dr. Abel J. Baker, secretary, and Dr. Charles Hooker, treasurer.

New Hospitals.—Dr. Guy L. Bliss has opened a hospital at Three Rivers in the Sage Building.——Dr. E. Ilmari Lindgren, Ishpeming, will erect a hospital in Marquette, to accommodate from twenty-five to thirty patients.——The Grand Rapids Antituberculosis Society has established a free dispensary at 23 Park Street, at which physicians and nurses are on duty from 12 to 1 on Monday, Wednesday and Friday of each week.

MISSOURI

Association Chartered.—The secretary of state has issued a charter for the Nevada Medical and Surgical Association, incorporated by Drs. Isaac W. Amerman, V. O. Williams and others.

Ground Broken for Hospital.—Ground was broken March 17 for the addition to St. John's Hospital, Joplin, to cost $30,000

The Sisters of Mercy have raised one-half of the required amount and the remainder is to be obtained by subscription.

Fined for Not Registering Certificate.—James A. Burke, consulting physician of a medical company of Kansas City, is said to have been fined $25, March 15, for practicing medicine without having first registered his certificate in the county as required by law.

Revocation of Licenses.—The State Board of Health, at its March session in Kansas City, is said to have revoked the license of Dr. William H. C. Sterett, Corning.——Action toward revocation of the licenses of Drs. George Schmitt and J. A. hughson, Kansas City, was stopped by injunction from the Wharterfield court on March 27. The temporary order restraining the board from revoking these licenses was dissolved on ruling of the judge that the Circuit Court had no jurisdiction, and that the physicians in question had redress in appeal from the decision of the state board. The board charged that these two physicians sold cocain in drug stores, and they were fined an aggregate of $10,500 in the municipal court.

St. Louis

Unlicensed Practitioner Fined.—Henry Hisserich is said to have been found guilty of practicing medicine without a license and fined $100, March 26.

New Tuberculosis Commission.—The mayor has signed the bill to create a second tuberculosis commission to take the place of the present commission whose term expires in a short time. The new commission is to be appointed for five years, and an annual appropriation of $25,000 a year has been made for it.

Social Service Hospital.—The Social Service Hospital, formerly the Protestant Hospital, 1011 North Eighth Street, has been entirely reorganized. As the name indicates, a social service department will form an integral part of the institution, which is located in the most densely populated portion of the city. The medical staff is as follows: Drs. Frances L. Bishop, Cyrus E. Burford, William W. Graves, John Green, Jr., Horace W. Soper, George S. Drake, Jr., Archer O'Reilly, Roy P. Sholz and Frederick J. Taussig.

NEW HAMPSHIRE

Medical School Commencement.—The graduating exercises of Dartmouth Medical School were held in Dartmouth Hall, Hanover, March 26, when degrees were conferred on a class of fourteen. Dr. Frank E. Kittredge, Nashua, delivered the doctorate address.

Surgical Club Meets.—The semi-annual meeting of the New Hampshire Surgical Club was held at Nashua March 18, and was the largest gathering ever held by the organization. Clinics were held in the morning at the Nashua Emergency Hospital by Drs. John M. Gile, Hanover, Fred B. Lund, Boston, and others. At the afternoon session Dr. Gile read a paper entitled "A Survey of Our Present Knowledge of Pancreatitis"; Dr. Alonzo S. Wallace, Nashua, spoke on "The Vaccine Treatment of Cancer," and Dr. Fred B. Lund discussed "Acute Gastric Hemorrhage and Its Treatment."

NEW YORK

Physicians in New York.—There are 13,937 physicians in New York, and of these 12,784 are registered as regular; 931 as homeopaths and 292 as eclectics. There are 283 medical colleges represented by their graduates in the state, 103 of which are in foreign countries.

County Tuberculosis Hospitals.—The State Charities Aid Association has drafted and introduced a bill which amends the law so that private patients may be taken in county hospitals for the care of persons suffering from tuberculosis. It provides that such a hospital shall not be a part of the almshouse.

Large Gift for Crippled Children.—Mrs. Elizabeth Milbank Anderson has given $500,000 to the Children's Aid Society to purchase the Chappequa Mountain property in Westchester county in order to establish a free sanitarium which will be open all the year around for sick and crippled children. Of the sum given, $150,000 was paid for the purchase of the property and $250,000 will be used as an endowment fund.

For Inebriety Board.—A bill has been introduced into the legislature providing for the appointment of a board of inebriety for the City of New York to consist of five members, to serve without pay for a term of five years each, and for the establishment of an inebriety hospital and an industrial colony in which persons arrested for public intoxication may be detained and treated scientifically. This measure was framed by the standing committee on hospitals of the State Charities Aid Association. The five members are to be named by the mayor after nominations submitted by the heads of the United Hebrew Charities, the Association for Improving the Condition of the Poor and the New York Council of the Society of St. Vincent de Paul.

State Charities Report.—The State Charities Aid Association has issued its thirty-sixth annual report for the year ended Nov. 30, 1908. This is a voluntary association having local committees which have supervised the almshouses and public hospitals in forty-three counties of the state. A careful study has been made of the ambulance service in hospitals. As a result of the campaign by the Association for the Prevention of Tuberculosis in the state, outside of New York City, six dispensaries have been opened, two large hospitals have been built, and visiting nurses for patients have been provided in six cities. Tuberculosis exhibits have been shown at the state fair and at thirty-five county fairs, and 344,640 pieces of literature have been distributed in this way. The association has placed 1,082 children in families and it is estimated that if these children were collected in an institution, the cost to the institution would be at least $500,000, and the cost of maintenance $100,000 per annum. The total expenditures for the year amounted to $64,295.

New York City

Automobile Ambulance.—A twenty-horse-power automobile ambulance has been put on service at Bellevue Hospital. The machine is equipped with every appliance, making it practically a traveling hospital.

The McCosh *Memorial*.—The committee in charge of the Andrew J. McCosh Memorial announces that more than $100,000 has been subscribed. The fund is to be devoted to the use of the new buildings of the Presbyterian Hospital.

May Lose Million Dollar Bequest.—Some time ago Louis A. Heinsheimer bequeathed $1,000,000 to Jewish charities on condition that existing institutions in the city should form a federation, but Mount Sinai Hospital has steadfastly refused to consider the formation of such a federation, although several meetings have been held, and the time allowed by the will for the consummation of such a federation has almost expired.

To Fight Cocain Sale.—Dr. Walter Bensel, city sanitary superintendent, has made an appeal to the Woman's Municipal League for money to enable the health authorities to fight the cocain traffic. He states that many physicians buy cocain for the purpose of selling it. The facts are known to the Board of Health, but there is no fund for the purpose of making convictions. It is said that the traffic in this drug is rapidly growing in the city.

Ozone a Germicide.—About two months ago Dr. Alvah H. Doty, health officer of the Port of New York, had a plant for the manufacture of ozone installed in his laboratory at Quarantine, and since that time he has been experimenting with this gas. He finds that it has several distinct advantages over steam and formaldehyd. The results of Dr. Doty's experiments will be of great practical use on shipboard as well as in sick rooms, theaters and public buildings.

Campaign to Save Babies.—New York's work to reduce the infant mortality was begun for the summer of 1909 April 5, by a meeting of fifty-five private agencies with officers of the department of health. The invitations were issued by Dr. Darlington and the conference on summer care of babies which was organized in 1908. It is planned to have two or three meetings before summer comes, so that hospitals, dispensaries, diet kitchens, and fresh air societies may be thoroughly prepared. The New York Milk Committee, which made an appeal for money last January with which to continue the milk depots for infants, states that $21,000 has been raised since that time, which will enable them to pay off their deficit and to support the seven milk stations until September 1. At present the committee is feeding 585 babies and these constitute less than 7 per cent. of the tenement babies in Manhattan absolutely without proper food or instructional supervision.

Classes for Consumptives.—The Bellevue tuberculosis clinic has started a series of classes on the plan of the Emmanuel Church of Boston. Hitherto the clinic has been able to exercise only a very indefinite supervision over the 700 patients who visit the clinic. From among the more intelligent, fifteen patients have been selected for the first class, and they meet once a week on the deck of the ferry boat, "Southfield," which is the Bellevue tuberculosis camp. Here progress is reported, records are compared, and advice and encouragement given. Each patient keeps his own record, takes his temperature four times a day, records the amount of nourishment taken, the amount of rest, and the time spent in the open air. A nurse supervises home arrangements and endeavors to bring them up to conditions in a sanatorium as nearly as possible. The families of the patients are examined and any member who has a predisposition to the disease is treated, as it is the aim of the clinic to get the cases in the earliest stage.

PENNSYLVANIA

Personal.—Dr. Edward R. Walters has been appointed director of the Department of Health and Charities at Pittsburg.——Dr. William W. Cadbury has resigned as pathologist in the Henry Phipps Institute, Philadelphia, and sailed for China March 6, where he will aid in the establishment of a University Medical School in Canton.

Applies for Charter.—The Physicians' College of Pittsburg has applied to the governor for a charter for the purpose of purchasing real estate and establishing a permanent home. The incorporators plan an extension of the library of the college, the establishment of a medical museum, and the provision of a directory of trained nurses.

Child Labor Bill Passes.—With only two votes against it out of a possible 188, the child labor bill was passed in the house March 31. One of the new features of the bill is its prohibition of the employment of minors, less than 18 years of age in furnaces, tanneries, dynamite and powder factories or in other hazardous places. Further, it is made unlawful to employ minors, less than 16, in the manufacture of paints, acids, matches or in tobacco factories. Minors less than 14 are not to be employed in any establishments, and those between 14 and 16 must have a rudimentary knowledge of English, be physically capable and have an employment certificate issued by the school authorities. They shall not be employed more than ten hours in any one day, or after o'clock at night, nor more than fifty-eight hours in any one week. Penalties for violation of law range from a fine of $10 to $50, or 10 to 90 days in prison, or both.

Philadelphia

Home-Coming Week at the University.—The University of Pennsylvania will observe home-coming week and has arranged a program extending from April 12 to 17.

Appropriations for the University of Pennsylvania.—On March 29, the House Appropriation Committee reported a bill recommending $700,000 to the University of Pennsylvania, or $200,000 less than the amount asked from the state by the institution.

Personal.—Dr. Charles A. Groff has been appointed assistant chief medical inspector to succeed the late Dr. Thomas J. Beatty.——Dr. Thomas S. Stewart is in Vienna.——Dr. William Drayton has been appointed to the division of Medical Inspection of the Board of Health.

State Appropriations.—The House Appropriations Committee reported favorably, March 31, appropriations to the following institutions: St. Joseph's Hospital, $50,000; Jewish Hospital, $40,000; Mercy Hospital, $40,000; Women's Hospital, $45,000; Fred Douglas Hospital, $22,000; Polyclinic Hospital, $145,000; Gynecean Hospital, $25,000; Lying-in Charity Hospital, $18,000; Medico-Chirurgical Hospital, $210,000; Kensington Hospital for Women, $45,000; Orthopedic Hospital, $33,000; Rush Hospital, $55,000; Garretson Hospital, $40,000; Howard Hospital, $22,000; Women's Medical College, $30,000; German Hospital, $60,000; St. Mary's Hospital, $30,000; Samaritan Hospital, $100,000; Stetson Hospital, $5,000; West Philadelphia Hospital for Women, $15,000; St. Christopher's Hospital, $21,000; Frankford Hospital, $70,000; Mt. Sinai Hospital, $65,000; Jefferson Medical College, $175,000; American Hospital for the Stomach, $20,000; Wills Eye Hospital, $90,000; and Jewish Sanatorium for Consumptives, $7,500.

GENERAL NEWS AND COMMENT

Opium Barred.—Beginning with April 1, neither opium nor any mixture or compound containing or representing opium in any form legally can be brought into the United States or any outlying possessions excepting for strictly medicinal purposes. This term is declared to mean for treatment or prevention of disease or

Coming Meetings.—The twenty-fourth annual meeting of the Association of American Physicians will be held in the New Willard Hotel, Washington, D. C., May 11 and 12, under the presidency of Dr. Victor C. Vaughan, Ann Arbor. The annual dinner and smoker will be held May 11.——The annual meeting of the Surgeons of the Frisco System will be held in Fort Worth, Texas, April 26 to 28.

Oliver Wendell Holmes Centenary.—The centenary of the birth of Dr. Oliver Wendell Holmes will be celebrated April 27 at Harvard University, where he held the chair of anatomy and physiology from 1847 to 1882. Former President Eliot of Harvard will preside. Addresses will be made by Dr. Ralph Waldo Emerson, Concord; Dr. David Williams Cheever, Boston; Col. Thomas Wentworth Higginson, and Rev. Samuel M. Crothers, D.D.

Charities Changes Name.—*Charities and the Commons*, with the issue of April 3, changes its name to *The Survey* with the sub-title *Social-Charitable-Civic*. The magazine stands for the prevention of poverty, disease, crime and inefficiency. It examines conditions of life and labor and points where they fail, and shows how long hours, low pay, and insanitary housing, disease, intemperance, indiscriminate charity and lack of recreation break down character and efficiency.

Bacillus of Leprosy Cultivated.—Cable dispatches from Manila, March 28, announce that Dr. Moses Clegg, bacteriologist of the Bureau of Science, Manila, has succeeded in making five successful cultures of the bacillus of leprosy, and has carried them through successive generations. Dr. Clegg is said to have obtained organisms from both living and dead lepers. He has been equally successful in making cultures from amebic dysentery, and is said to have established symbolic relationship between the germ of the two diseases.

Canal Zone Health Report.—The chief sanitary officer of the Canal Zone, in his report for February, announces that the death rate for that month for employés was at the annual rate of 10.98 per 1,000. The death rate for the total population was 18.59 per 1,000, the lowest death rate since the United States has been in charge of the Isthmus. There was also a large diminution in the amount of sickness among employés in February as compared with January, the respective daily figures being 951 and 1,116. During January, 1,258 cases of malaria among employés were admitted to the hospital, and during February only 852. No case of yellow fever, plague or smallpox occurred during the month.

Twelfth International Congress on Alcoholism.—This biannual congress will convene in London, Eng., July 18, 1909, and last a week. This is really a medical congress, in which the latest studies and conclusions are presented from a strictly scientific point of view. Alcohol will be discussed in its relation to:

Lobar Pneumonia and Enteric Fever, by Dr. Holitscher, Karlsbad
Immunity, by Dr. Laitinen, Helingsford.
Temperature of the Body, by Prof. G. S. Woodhead, Cambridge
Muscular and Mental Fatigue, by Dr. W. R. Rivers, Cambridge
Resistive Power of the Brain, by Prof. Clouston, Edinburgh.
Nervous System—(Hospital and Asylum Practice), by Dr. F. W. Mott, London.
Inebriety and Insanity, by Dr. La Grain, Paris.
Legislation for the Inebriate, by Dr. Branthwaite, London.
Children, by Dr. Deutsch, Budapest.
Vital Statistics, by Dr. Hansen, Keil.
Home Life, by Drs. Bramwell and Booth, London.

The scientific section will hold five different meetings. There will also be general meetings and an educational section to take up sociologic problems. The undersigned, as honorary vice-president, has this matter in charge and will be glad to confer with anyone who would like to be present and take part. T. D. Crothers, Hartford, Conn.

Health of the Isthmus.—Col. William C. Gorgas, medical corps, U. S. Army, chief sanitary officer of the Canal Zone, in his annual report calls attention to the low death rate of employés, which has decreased from 41.37 per 1,000 in 1906 and 28.77 per 1,000 in 1907 to 13.01 in 1908. The death rate for the entire population of Panama, Colon and the Canal Zone has also decreased, the respective figures for the last three years being 49.10 per 1,000 in 1906, 33.63 in 1907, and 24.83 in 1909. In 1906 there were 69 deaths from dysentery out of 26.705 employés, in 1907 48 deaths out of 39.343 employés, and in 1908 16 deaths out of 43.819 employés. Similarly in malaria, in 1906 there were 233 deaths from malaria, in 1907 154 deaths and in 1908 73 deaths. Typhoid fever caused 98 deaths in 1907, but only 19 deaths in 1908. There has also been a great diminution in deaths from pneumonia. In 1906 there were 431 deaths from this cause; in 1907 328 and in 1908 93 Among white Americans from the United States there were 42 deaths during the year, one-half of which were from violence, the death rate from disease among this class being 3.84 per 1,000. The best sanitary work done he considers to be in malaria, as in 1906 821 out of every 1,000 admissions to the hospital were from that cause. In 1907 424 out of every 1,000, and in 1908 282 out of every 1,000. Beriberi caused 68 deaths in 1906, 53 in 1907, and 38 in 1908. More than three years have passed since a case of yellow fever has developed on the Isthmus, the last case of plague occurred in August, 1905, and no case of smallpox was reported during the year.

Therapists to Meet.—The tenth annual meeting of the American Therapeutic Society will be held in New Haven, Conn., May 6-8, under the presidency of Dr. Frederick H. Gerrish, Portland, Maine. The presidential address will be on the subject, 'The Therapeutic Value of Hypnotic Suggestion." On the first day the symposium will be on "Diabetes," led by Drs. Alfred C. Croftan, Chicago; Solomon Solis Cohen, Philadelphia; Robert T. Morris, New York City, and Alfred King, Portland, Maine. On the second day, the symposium will be on "Diet," in which papers will be presented by Drs. Louis M. Gompertz, New Haven; Alexander D Blackader, Montreal; Lafayette B Mendel, New Haven; Frank P. Underhill, New Haven; Russell H. Chittenden, New Haven; Harvey W. Wiley, Washington, D. C, and M. Howard Fussell, Philadelphia. On the third day, the symposium will be on "Psychotherapy," and will be participated in by Drs. Morton Prince, Boston; Ernest Jones, Toronto; Edward W. Taylor, Boston; Tom A. Williams, Washington, D. C.; James J. Putnam, Boston; Boris Sidis, Brookline, Mass.; George A. Waterman, Boston, and John E. Donley, Providence, R. I. The president's reception will be held on the evening of May 7; the society will be entertained at luncheon and organ recital at University Hall by the local membership on the afternoon of May 7, and the annual dinner will take place at the Union League Club on the evening of May 8.

International Congress on Hygiene and Demography.—This congress will meet in Washington, D. C., Sept. 26 Oct. 1, 1910, according to the decision of the committee on organization, which held a preliminary meeting at the call of the Department of State in Washington, April 6. This convention was invited to Washington by the United States Government. Our Washington correspondent reports that the following members of the committee were present: Mr. Huntington Wilson, Assistant Secretary of State; Simon N. D. North, Director of the Census; Lieut. Col. Walter D. McCaw, of the Surgeon-General's Library; Dr. William H. Welch, Baltimore; Dr. John S. Billings, New York; Dr. John S. Fulton, Washington; General George M. Sternberg, Washington, D. C; Medical Inspector Henry G. Beyer, U. S. Navy; Dr. Abraham Jacobi, New York; Dr. George H Simmons, Chicago; and Dr. A. D. Melvin, Chief of the Bureau of Animal Industry, Washington, D. C. The committee made the following recommendations to the Department of State: For president, Dr. Henry P. Walcott, of Cambridge, Mass., president of the Massachusetts State Board of Health; for secretary general, Dr. John S. Fulton, secretary general of the last International Tuberculosis Congress; executive committee, Drs. Welch, of Baltimore; North, Beyer, McCaw, Wyman and Sternberg, of Washington; Biggs, Jacobi and Billings, of New York; the president, secretary general and chairman of the organization committee, and Mr. Huntington Wilson, ex officio members. It was recommended that the executive committee should arrange the general plan of organization, determine policy, organize a definite scope of sections and report to the Department of State under the supervision of which department the Congress will be held. The date of the meeting was tentatively fixed at Sept. 26 to Oct. 1, 1910.

CANADA

Unregistered Practitioner Found Guilty.—"Dr." Pelletier, Ottawa, charged with practicing medicine in the city without having registered as a physician in the Province of Ontario, is said to have been fined $25 and costs March 6.

Grenfell in Winnipeg.—Seventy medical men of Winnipeg attended a complimentary banquet in honor of Dr. Grenfell, March 27, Dr. John A. McArthur presiding. Dr. Grenfell made an address dealing with the phases of his work on the Labrador coast.

Proprietary Medicine Act in Force.—The Dominion Proprietary Medicine Act was put in force April 1. It provides that formulas must be put on labels if any of thirty-three common poisons are used in the mixture, and eight drugs which are used for the production of abortion are placed on the expurgatory list. It is now an offense in Canada to distribute samples of medicine from door to door.

Society Meetings.—At the annual meeting of the South Waterloo (Ont.) Medical Association, Dr. Robert J. Lockhart, Hespeler, was elected president; Dr. William S. Dakin, Galt, vice-president; Dr. Sylvester E. Charlton, Galt, secretary, and Dr. Ward A. Woolner, Ayr, treasurer.——St. Thomas (Ont.) Medical Association at its annual meeting elected Dr. Frederick Guest, president; Dr. John H. Cormack, vice-president; Dr. Duncan A. McKillop, secretary; Dr. C. E. Berkeley Duncombe, treasurer; Dr. Archibald Leitch, librarian, and Drs. George A. Marlatt, Archibald C. Campbell and Frank Lawrence, members of the executive council.——Sarnia (Ont.) Medical Library Association has elected Dr. David B. Bentley, president; Dr. Joseph A. Bell, vice president; Dr. Robert G. McDonald, secretary-treasurer, and Dr. Thomas Bradley, librarian.

Hospital Notes.—St. Catherines Hospital has secured a site of seven acres for a tuberculosis sanatorium.——Brantford, Ont., is to have a tuberculosis sanatorium. The Ontario government has donated $4,000 and the citizens will raise $10,000.——Toronto voted in January to appropriate $50,000 to St. Michael's, Grace and Western hospitals in that city. The hospitals will not accept the donation if the city authorities insist on the condition that every patient that pays seventy cents a day must be treated by his own physician.——Final plans for the Manitoba Provincial Sanatorium at Ninette have been prepared and submitted to the trustees. Dr. David A. Stewart is to be superintendent of the sanatorium, and the first unit will probably be able to accommodate 60 patients.——The management of the Montreal General Hospital has decided to erect a new building to cost about half a million dollars. The institution when completed will accommodate 500 patients.——The new Winnipeg Children's Hospital will formally open February 6. The hospital is surrounded by two acres of land, and the building will accommodate 30 patients.

Fighting Tuberculosis in British Columbia.—At the annual meeting of the British Columbia Anti-Tuberculosis Society held recently in Victoria, the superintendent of the Sanatorium for Consumptives at Tranquille, reported that the number admitted during 1908 was 47 and the number discharged 34. Of the incipient cases, there were 12 apparent cures, one case of arrested disease, one progressive case and no deaths. Of the advanced cases, the disease was arrested in five; much improved in one; improved in one; stationary in one; progressive in two, and none died. Of the far-advanced cases, the disease was arrested in one; improved in one; stationary in one and progressive in one, and two died. The meteorologic report showed that out of 245 days of which records were taken, there were 207 days of bright sunshine and 38 days entirely without sunshine. The amount expended on building improvements during the year was more than $24,000. The work at this institution is confined solely to residents of British Columbia, although numerous applications have been received from all parts of Canada and from the northern and western states The maintenance fund for the year showed a deficit of over $2,000. Dr. Charles J. Fagan, provincial medical health officer of British Columbia, was re-elected secretary of the society.

FOREIGN

Typhus at Kiev.—The epidemic at Kiev, Russia, has attained such proportions that there were 650 typhus patients in the public hospitals and 300 in the prison hospital February 23.

Fire Destroys Hospital at Venice.—The Ospedale di Campo San Piero at Venice was recently destroyed by fire, but the 160 patients were all safely transferred to neighboring houses or buildings, although the panic at first was indescribable and many escaped only in their night clothes. The hospital at Padua has set apart a pavilion for the reception of those able to be transferred to this distance.

French Congress for Neurology and Psychiatry.—The nineteenth Congress of French-speaking Neurologists and Alienists will be held this year at Nantes, August 2 to 8. The three subjects appointed for discussion are: 'Obsessions in Psychiatry," "Chronic Chorea." and "The Insane in the Army from the Medicolegal Standpoint." The membership fee is $4, with a $2 fee for associate membership. For further particulars address the secretary, Dr. C. Mirallié, 11, rue Copernic, Nantes, France.

Alleged Discovery of Germ of Trachoma.—None of the micro-organisms described by various writers hitherto as the specific germ of trachoma has given satisfactory inoculation experiments, but the cable now announces that Prof. R. Greef of Berlin, chief of the eye department at the Charité, has succeeded in inoculating apes with a micro-organism which he has discovered, and which he regards as the true causal germ. He has been making a special study of trachoma for a number of years, having been sent to the strongholds of trachoma in Westphalen and Posen by the government on different occasions to study the disease and means to combat it. His translation of Cajal's great work on the retina of vertebrates is a classic; his other works deal mostly also with the finer structure of the eye. Professor Greef will be 47 years old next June.

LONDON LETTER

(From Our Regular Correspondent)

London, March 27, 1909.

Admission of Women to the Royal College of Surgeons

The end of the long struggle for the admission of women to the Royal College of Surgeons has been recorded in previous letter. According to the new by-law which has just been published women may be admitted members and fellows of the college and licentiates in dental surgery, but they will not be eligible for seats on the council, nor to take part in the elections to the Council nor to attend any meeting—except purely scientific ones—of the fellows or of the fellows and members, nor be elected examiners. The new by-laws, therefore, will probably prove anything but acceptable to medical women. The admission of women to the fellowship, the highest qualification of the college, and yet denying them the right, which has always accompanied this distinction, of taking part in the election of the council, is most inconsistent, but consistency is not a quality which troubles the English mind. Indeed, these by-laws exemplify the national characteristic of compromising in everything and adopting reforms in a cautious and gradual fashion.

Plague in India

During the present year plague is in abeyance in India and the deaths number only hundreds instead of thousands, but no one can foretell when it may reappear in epidemic form. Since the outbreak in the summer of 1896 the mortality has been appalling. In that year it began in the Bombay Presidency, where it caused 2,219 deaths, most of them in the city of Bombay. In the following year the mortality rose to 54,000. Then the disease spread inland to other provinces. In 1901 the deaths amounced to 283,000; in 1902, to 584,000, and in 1904, to 1,144.000. In 1905 over a million deaths occurred. In 1906 a great decrease occurred, the deaths falling to a third of those of the previous year. No explanation could be given for this sudden fall, and it was hoped that the disease had expended its virulence. But in 1907 it gained fresh vigor and caused more deaths than ever—1.316,000. Then another lull occurred and the number fell to 149,000 in 1908. The total deaths for the twelve and a half years since the disease appeared in epidemic form has reached the enormous figure of 6,200,000.

Medical Officers of Schools Condemn Violent Athletics

In consequence of a joint letter published in the London *Standard* by Sir Lauder Brunton, Sir Thomas Barlow, Dr. Goodhart, Dr. Hale White and Sir Alfred Fripp, stating that "school and cross country races over a mile in length are wholly unsuitable for boys under 19," an important discussion took place at the Medical Officers of Schools Association. In introducing the subject, Dr. Collier of Oxford emphatically denied that many schoolboys were injured by long-distance racing. But at the universities functional albuminuria was frequently produced by rowing. Dr. Goodhart said that the nervous effect of long races was felt in after life. After considerable discussion, in which many speakers said they had never observed ill effects from school athletics, though they insisted on the necessity of medical examination before the boys were permitted to take part in them, it was decided that "only a few of the stronger and older boys should be allowed to compete for the longer distances. . . . Competitions in long-distance diving and in long-distance swimming are dangerous for adolescents, and the so-called Marathon races are wholly inappropriate."

PARIS LETTER

(From Our Regular Correspondent)

Paris, March 23, 1909.

An Association of Medical Teachers

There has been founded, on the initiative of the Faculty of Lyons, an association to protect the material interests of the members of the teaching body of the faculty in regard to the superior administration and the public authorities, as well as to study together connectedly the problem of the organization of medical studies. The first general meeting of this association will take place at Paris April 2-4, when the following subjects will be discussed: (1) The competitive examination and the privat-docent system, regarded as a recruiting-ground for the teaching body of the faculty, by Professors Gross and Michel (of Nancy); (2) the reform of the competitive examination for the assistant professorship, by Professor Grasset of Montpellier and Professor Charmeil of Lille; (3) specialization of the *agrégation*, by Drs. A. Broca, Brunot, and P. Teissier, *agrégés*, the faculty of Paris; (4) nomination of *agrégés* on a single list (one for all the faculties) or on multiple lists (one for each faculty), by Professor Réclus of Paris and Dr. Barrier, *agrégés* at Toulouse; (5) transformation of the temporary position of *agrégé* to a permanent post, by Professor Arnozan of Bordeaux. While the first four questions are connected with recent events, the fifth has always occupied the attention of the teaching body of our faculties, for, contrary to the usage in the faculties of science and jurisprudence, the *agrégés* in which are appointed for life, the *agrégés* of the faculties of medicine are nominated only for a period of nine years, which renders their material status precarious and often prevents them from devoting themselves entirely to teaching.

The Consumption of Alcohol and Absinthe in France

The statistics and chart showing the consumption of alcohol and absinthe in France during the year 1907 have been recently published. In glancing over the chart one is struck by the inequality of the consumption in the different districts of France. A compact group of 21 departments which, starting from Paris, embraces part of the northeast, the north, and the west of France—the departments producing beer and cider—forms a large black blot. It is there that the greatest consumption of alcohol occurs. Seine Inférieure takes the lead, with nearly 12 liters *per capita;* the consumption in the other departments of this group ranges from 4.06 (Seine) to 9.11 liters. The departments on the east and southeast consume from 2 to 4 liters *per capita*. Finally, one sees on the chart a great white space, extending over the center, the southwest, and a large part of the east; this represents the departments in which the consumption of alcohol falls below 2 liters *per capita*. The consumption of alcohol is higher in the towns than in the country, the proportion remaining the same according to the groups of departments above indicated. One reassuring deduction may be drawn from these statistics, namely, that the consumption of alcohol (but not of absinthe) tends generally to diminish, and that this diminution is more rapid in the town than in the country. This is proved by comparison of the figures for 1897 and 1907. Havre and Rouen, which head the list, have dropped from 19 to 15 and from 17.51 to 13.79 liters *per capita;* Paris from 7.95 to 3.87; Marseilles from 7.58 to 3.45; Lyons from 5.73 to 2.59; Bordeaux from 4.52 to 2.75; Nice from 5.09 to 2.32; Toulon from 8.08 to 4.70; Montpellier from 5.27 to 2.27, etc.

The drop is perceptible in every district. It is to be attributed in part to the increased taxation voted by parliament, which has led the liquor producers to reduce the proportion of alcohol in their liquors; in part to the town-dues (*taxes d'octroi*) that the towns have imposed on alcohol, and, finally, in part to the success of the anti-alcohol movement. Another cause of this diminution has been the prohibition of alcohol in the barracks (*casernes*). During their term of compulsory military service young men are little by little broken of the habit of drinking alcohol, and they bring these new morals with them on their return to civilian life.

However, if the consumption of alcohol, generally speaking, has diminished in France, the statistics reveal another danger, namely an increased consumption of absinthe. In this the south takes a startling lead over the north. It is the provinces of the south, southeast and east which drink most absinthe. Marseilles stands at the head, with 3 liters of pure absinthe *per capita;* on the other hand, in the departments of the north, center and west, the consumption of absinthe does not reach 1 liter *per capita*.

A Girdle of Parks Around Paris

Most of the great cities of Europe and America outlined a plan in advance for work to be executed later Thus London, Berlin Manchester, Vienna and Hamburg reserved around the heart of the city large open spaces for parks playgrounds etc In America, New York, Boston, Philadelphia, Baltimore Chicago and San Francisco are surrounded by a girdle of parks assuring to the population air and light according to the requirements of public hygiene Paris has no plan of this kind outlined and all such work is done haphazard The Social Museum (*Musée social*) has taken up the matter and organized two years ago a special department on urban and rural hygiene to study the means for remedying this deficiency The department has prepared a plan which takes note of the present crowded condition of Paris and proposes to repurchase from the government the fortifications around Paris as well as a part of the adjoining military zone, and to divide the land into nine large parks with an average area of 15 hectares each (about 30 acres) and 13 playgrounds of an average of 1½ hectares (about 3 acres) This work will cost 75 millions of francs, out of the 145 which the sale of the surplus land will bring in the remaining 70 millions represent the sum that the city of Paris will pay into the national treasury for the land The plan thus promotes public hygiene without expense to the people of Paris On March 5 a delegation from the *Musée social* laid the plan before the secretary of the interior, M Clemenceau who approved of it and the matter is now under discussion by the municipal and national authorities

BERLIN LETTER

(From Our Regular Correspondent)

BERLIN March 15, 1909

Practical Value of the Wassermann Reaction for Syphilis

An important discussion on the clinical value of the so called Wassermann serum reaction for syphilis took place a short time ago in the Society for Internal Medicine of this city

One of the speakers Dr F Lesser states that in 2 000 cases he has never found the reaction positive unless syphilis was present or unless there was a well founded suspicion of its presence The reaction to be sure is marked in many cases of scarlet fever but this exception has no practical significance The negative result of the serum *reaction*, however does not argue against the presence of syphilis In cases of hereditary lues the reaction is almost always strongly positive and indeed survives the first decade Either the watery or alcoholic extract of a syphilitic liver or an alcoholic extract of normal heart may be used, but Lesser believes that Wassermann's original directions to employ a watery extract of the liver give the best results In a primary lesion, the reaction appears first, as a rule after a three weeks' duration of the primary sore For this reason Lesser regards the reaction as unsuitable for the differential diagnosis between chancre and chancroid

In rare cases a positive reaction is obtained before a primary lesion is demonstrable In cases of progressive paralysis Lesser has constantly obtained a positive *reaction* He therefore has no hesitation in attributing the paralysis to syphilis without exception In tabes he has obtained a positive reaction in only 56 per cent of the cases Lesser found that in most cases it was possible by an energetic specific *treatment to transform* a positive into a negative reaction He concludes, therefore, that when *the* reaction is positive the syphilitic virus is still active, and that it is the duty of the physician in such cases to institute antisyphilitic treatment The reaction gives no basis for determining the severity, extent or localization of the disease The diseased focus may be situated where it can do no harm, but it is to be remembered that every syphilitic who gives a *positive* reaction is exposed to the danger of developing tabes or progressive paralysis Lesser has never seen a change of the reaction from the use of atoxyl

The second speaker, Professor Blaschko, though likewise convinced of the diagnostic value *of the* reaction, calls attention to the fact that complement deviation has also been observed in occasional cases of leprosy, *frambesia* sleeping sickness, scarlatina, severe diabetes and after vaccination On the other hand there are cases in which syphilis is clinically certain, but the reaction fails These cases may be isolated lesions of the skin or mucous membrane *or* advanced cases of tabes and cerebral syphilis, or finally *relatively* o en affections of the bones Blaschko believes that the negative reaction obtained as a result of treatment is seldom permanent or of long duration, particularly in early cases, while in the later stages the influence of treatment on the reaction appears to be more lasting Blaschko thinks that patients should be treated until a negative reaction is obtained as a general rule, but that the possible damage to the patient from a long continued mercurial treatment must always be borne in mind

Blaschko also believes that treatment should be begun whenever the reaction is positive even if visible lesions are lacking Syphilitics should be subjected at regular intervals not only to clinical, but also to a serodiagnostic examination, the latter to be made several times a year in the early years and later yearly In many cases, to be sure it will be necessary, even in the later years, to repeat the examinations several times in a year The prognostic value of the reaction, positive or negative is slight in the first three years of the disease

In the debate on these papers most of the speakers expressed themselves more reservedly than the two leaders regarding the value of the reaction for diagnosis, prognosis and therapy

An assistant of the clinician, E Lesser, *emphatically believed* that we were not yet justified in placing *the diagnostic* value of the serum reaction on a par with that of the well known clinical symptoms

Professor Wassermann emphasized the fact that he had from the beginning recommended that significance should be attributed only to positive reactions and not to negative He said that in ordinary practice alcoholic extracts from normal organs would answer for eliciting *the reaction but* in laboratories which deal specially with the serum diagnosis of syphilis there must be on hand as a standard for control, a watery extract prepared according to the original directions which should be frequently tested for possible changes

Increase of Insane in Prussia

While according to the last census taken Dec 1, 1905, the number of deaf mutes and blind in Prussia had relatively decreased a regrettable increase of the insane was ascertained In 1880 there were 66 345 insane in Prussia, in 1905 139,182, 24 3 per 10 000 inhabitants in 1880 37 3 in 1905 While the number of inhabitants increased 36 7 per cent in twenty five years, *the number* of insane increased 110 per cent It must be noted, however, that the term 'insane" was given a wider meaning in 1905 than in previous censuses, which accounts for a part of this striking increase

VIENNA LETTER

(From Our Regular Correspondent)

VIENNA, March 20, 1909

Appointment of von Strumpell

Finally, *the Wiener Zeitung* publishes the appointment of Professor von Strumpell to the chair of the third *medical* clinic in Vienna as successor of Professor Schrotter As pointed out in my last letter, there were some apparently uncontrollable influences at work, trying to prevent, if possible, the appointment but the energetic attitude of the senate of the university succeeded in impressing on the determining personage that a public scandal would arise if the proper course were not adhered to, so it was deemed best to fill the vacancy

Health of the Viennese Laborers

The report of the *Arbeiter Kranken Kassa* (laborers' sick benefit society) of Vienna, contains some interesting figures regarding the health of a fairly uniform group of earners This society has 310,000 members all living in Vienna In January, the number of reported cases of illness was 11,409, only those incapacitated to work are reported to the registrar Of these, 10 per cent (1,138) were suffering from tuberculosis of the respiratory organs, 562 from influenza, 59 from pneumonia, 2,028 from other catarrhal affections of these organs, 592 had tonsillitis 371 diseases of the circulatory system, 728 suffered from disease of the intestinal canal, including the stomach 7,210 had rheumatic pain, and there were 1 746 cases of illness due to work (accidents called work injuries) The number of deaths was 319 in this one *month;* 48 per cent or 157, succumbed to tuberculosis, 10 *patients* died owing to work injuries, 23 from neoplasms, *39 from* heart disease These figures are official, but it *must be* remembered that some of the better paid wage earners *prefer* to call in their own private physician, as the contract physician is often so overburdened that he really has not much time for the individual patient, 1,000 to 1,500 persons are allotted to each of these physicians, living often not in the same district. In busy times, there are from 20 to 30 visits to be made daily, besides about the same number of patients to be attended to in the office. Naturally, the physician is forced to be brief in his directions and his examinations. Taking these conditions into consideration, it may be assumed that 4 per cent. of the members of the societies are incapacitated monthly, or about 50 per cent. yearly.

Pharmacology

Kataplasma Kaolini, U. S. P., 1900

To the Editor:—Many things are revived, which already have passed in oblivion, and many things fall, which are now held in honor (Horace).[1] Dr. Herman Schelenz of Cassel, Germany,[2] has shown positively that earth and clay pastes and poultices have been used intermittently from the very earliest period in the history of medicine. The recent introduction into our pharmaceutical armamentarium of the earth poultices and clay pastes should not be regarded, therefore, in any way as a novelty.

In the course of the past few years, such preparations have been exploited broadcast and with vigor, and many medical journals are filled with almost frantic attempts to convince the profession that these remedies are *sine qua non* in a host of diseases of amazing variety, special reference, however, being shown for diseases ending in "itis." That the labors of these exploits were not wasted soon became evident. Physicians began to prescribe these preparations to an extent far beyond the dreams of their "originator;" indeed, the demand became so great that the committee for the revision of the Pharmacopeia of 1900, in its paternal effort to rescue the general practitioner from the "patent-medicine" prescribing habit, inserted an official preparation, which the physician ould prescribe "ethically." Then a peculiar thing happened: stead of prescribing the official preparation, the physician continued to prescribe the proprietary, and if the pharmacist attempted to serve the official preparation in such circumstances the physician promptly cried "substitution," much to the pharmacist's discomfort. A natural consequence was that the official preparation was neglected, and now to all intents and purposes has ceased to exist. Instead of accomplishing their much-desired and worthy end, this committee therefore merely afforded additional advertising ammunition to the exploiters of these nostrums, who now boast that the U. S. Pharmacopeia—which incidentally Dr. Schelenz calls "an aristocrat among all the pharmacopeias"—advises the use of their preparations in the treatment of diseases, and that all these pastes are regarded as sufficiently worthy to be classed with such well-recognized and time-honored remedies as opium, quinin, arsenic, iron and mercury.

The widespread use of this preparation by physicians furthermore has resulted in an unforeseen and to the general practitioner disagreeable consequence, namely, that the layman has introduced these pastes into his own pharmacopeia to a surprising extent.

A few experiences with these preparations have not endeared them to me nor encouraged me in their use. One of my first observations was in the case of a child, suffering from bronchopneumonia, whom I found encased in a heavy layer of one of the best known of these western muds, and in whom the already seriously impaired respiration was further embarrassed by the weight of the clay poultice. Furthermore, the pores of the skin were closed and the paste interfered with the free access of air to the body, an important principle in the treatment of any disease, particularly in fever. I have also seen the same preparation applied to corns, bunions, ingrowing toenails, typhoid fever, spinal meningitis, miliary tuberculosis, varicose veins, rheumatism, appendicitis, swollen testicles and even to open wounds and ulcers. The clay paste covers a multitude of complaints. I have seen it cause severe irritation due to its most active principle, glycerin.

There is no valid reason whatever for the use of these clay preparations; the U. S. Pharmacopeia contains a sufficient number of counterirritants and rubefacients that are in every way superior to them. There is no need for a clay paste and no necessity for canonizing such a preparation by making the formula official.

A. A. Herzfeld, M.D., New York.

How Testimonials Are Secured

An article by George Frank Lord on "Testimonials in Advertising" (*Printer's Ink*, Feb. 3, 1909), undoubtedly deserves the prize for a cynical unveiling of the unscrupulousness that underlies the modern advertising method. He supports the use of the testimonial on the following ground: "Until the evolution of a perfect man with infallible judgment and universal knowledge, we must all of us depend on the experience and opinion of others—and that is exactly what a testimonial represents." He then proceeds to demonstrate that that is exactly what a testimonial does not represent, in very many cases: "The average 'patent medicine' testimonial is genuine . . . because the 'patent medicine' ad. appeals chiefly to hypochondriacs who are not sick, but imagine they are when they read their 'symptoms.' The same ad. creates the sickness and effects a cure *à la* Christian Science. The purchase of the medicine is really unnecessary except from the advertiser's viewpoint."

Another instance of the value of the so-called experience and opinion of the testimonial giver is displayed in the following advice: "The best time to get a testimonial is shortly after the purchase is made, while the buyer's first enthusiasm is at its height. . . . Further, advantages resulting from the use of an article are not always permanent, and unless the testimonial is secured at the psychologic time it can not be obtained at all."

If the principles involved in the foregoing excerpts are not blankly dishonest, then we must confess that the meaning of the term dishonest is not clear to us. And yet they are the principles that are adopted in securing "patent medicine" testimonials.

Correspondence

A New Sign of Perforation in Typhoid Fever

To the Editor:—In The Journal, February 27, page 695, in the article entitled a "New Sign of Perforation in Typhoid Fever," the following statement occurs: "A small area of tenderness was found low down in the right iliac fossa. The patient was turned on his left side and in half an hour the area of tenderness had moved toward that side about two inches."

This seems such bad teaching that it should not be allowed to pass unchallenged.

Patients with perforation in typhoid fever die from general peritonitis. With the vast improvement in results from Fowler's position, based on Muscatello's finding as to regions of absorption, a surgeon of to-day can scarcely justify his position if he treats his patients otherwise. No one would dream of using Clark's position. It would seem equally indefensible to place the patient in any position whatsoever, merely to make him worse in order to prove the diagnosis. The position on which this "new sign" depends simply means spreading the septic material to the left side in order that peritonitis may occur there, and thus help in the diagnosis. Rather should it be laid down that in any case of suspected perforation the resident staff and the nurses must be instructed that their duty lies in a series of negatives, except that the head of the bed should be elevated. After that the patient must not be sponged, must not receive food, must not be moved, must not receive an enema, and must not be examined by any and every physician who happens to come to the hospital. One could not think of any worse treatment than that recommended, except it be giving a purgative or an enema or adopting Clark's position.

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[1] Multa renascentur, quæ iam cecidere, cadentque, quæ nunc sunt in honore.

[2] Die Geschichte der Pharmacie, Julius Springer, Berlin.

Without going into details in the diagnosis of typhoid perforation, I should like to say that the most essential point is to have trained observers who can detect the signs at the time of perforation. The sharp, stabbing pain is the chief feature, and if not taken into account at once by an observant resident physician, or an equally observant nurse, it will, in many cases, be lost entirely, for when the attending physician visits the bedside the patient has forgotten all about it. Then the diagnosis must rest largely on the spreading peritonitis.

As to whether or not the first sign mentioned has been noticed before, see the discussion on Dr. J. D. S. Davis' paper on "Treatment of Typhoid Perforations" which took place at the twenty-first annual meeting of the American Association of Obstetricians and Gynecologists at Baltimore, September, 1908, published in the *American Journal of Obstetrics and Diseases of Women and Children*, December, 1908, pages 1058-1060.

Throughout the whole realm of medicine we are often tempted to seek pathognomonic "signs," and in looking for these, many other very relevant, though singly minor, symptoms are lost sight of. With all the advancement in modern medicine, we err if we lack in close observation and expect to replace it with new devices.

Jasper Halpenny, Winnipeg, Manitoba.

[The above letter was referred to Dr. Brown, who says:]

With regard to the sign to which objection is taken, I would refer Dr. Halpenny to the closing paragraph of the article. There I place the limit of time for observance of the sign as half an hour. I can see no reason why it is not better to allow the peritonitis to spread in a definite direction, which direction will help us in the diagnosis and at the same time tend to keep it from spreading upward or from spreading around the cecum into Morrison's space, and thence upward under the liver, than to allow it to spread in any direction than it may by chance take, or by placing the patient in the Fowler position to make it spread downward into the pelvis. Furthermore, I do not think that if the limit of one or two inches is observed the peritonitis will become uncontrollable in that direction (namely, toward the unaffected side), any more than it will in any other, provided immediate operation is performed.

With regard to the "series of negatives," I would call Dr. Halpenny's attention to the fact that with an estimated average of 25,000 persons dying annually in the United States from perforation in typhoid fever, in twenty-three years but 524 cases operated on have been reported. In my opinion the "series of negatives" has to a great extent been responsible for this.

In the discussion referred to, Dr. T. B. Noble of Indianapolis calls attention to the value of auscultation in the diagnosis of typhoid perforation and the sign which he describes is elicited in the following manner: He used an ampliphone, placing it over the area of greatest tenderness, and by making alternate palpation on either side he was able to elicit a friction sound such as one would get in a pleuritis. The same sound was produced by deep respiratory movements, which indicated roughened peritoneal surfaces passing over each other, the roughening due to an infection which came from an impending or already existing perforation.

The sound elicited by the method described by me is not a friction sound, but is similar to a very fine crepitant râle. Furthermore, the sign described by Dr. Noble necessarily presupposes that the surfaces must be in contact in order to produce the friction while in the sign described by me the surfaces are made to come into contact with one another by the dipping with the bell of the stethoscope.

As to the priority, the sign which I describe was first mentioned by me in a paper read before the Clinical Society of St. Luke's Hospital Staff, Utica, N. Y., in October, 1907.

With regard to the point of trained observers I would state that such a condition is much to be desired, and the fact that I might possibly help a little toward helping others to become "trained observers" was the reason I wrote the article.

General Practitioners and Simple Refraction

To the Editor:—There may have been some excuse in times past for the public's resorting to the old time spectacle vendor to "get glasses fitted"—at any rate for the larger part of the public, which is unable to pay high professional fees in addition to the expense of costly glasses. Now, however, that the optician has arrogated to himself a would-be professional status, accompanied, of course, with a more or less commensurate fee, the question insistently suggests itself: Should not the general practitioner be able to recognize and manage cases of simple refraction? The answer indisputably must be "yes," for various reasons.

First: The main reason for equipping family physicians with a working knowledge of simple refraction is that they may be able to do the medical practice now in the hands of opticians. While complicated refractive cases will often exceed the limitations of a family physician, no medical student or competent physician is so stupid that he can not learn to refract as well as, or better than the optician. Observations show us that some family physicians have mastered the art of simple refracting, so that we know others can do the same if they so desire These will have the good sense to follow the custom established in other branches of practice, and seek the aid of a specialist in cases too intricate for their skill.

Other reasons why the family physician should possess working knowledge of simple refraction are: (1) That he may detect eye disabilities at their inception and so prevent the suffering sure to follow their neglect; (2) that no excuse may occur for patients heeding the specious promises of the optician's advertisements; (3) that the optician be relegated to his proper function, of selling glasses on physicians' prescriptions.

Second: A "working knowledge of simple refraction" by the family physician will (1) augment his income from enlarged service to patients; (2) strengthen his hold on families; (3) remove the necessity of his patients applying to a stranger for relief from eye disability; (4) broaden his intellectual capacity, increase his technical skill, and sharpen his power to penetrate the intricacies of other classes of cases. Such equipment enables him to appreciate better the difficulties of special ophthalmology, and fits him for cooperation with ophthalmologists in intricate cases.

Third: Without a "working knowledge of simple refraction" no family physician can meet his full obligations to the laity. Thus when his families consult him for ailments involving simple refractive defects, he must refer them to strangers or prescribe on a mere guess—either alternative is sure to disturb their faith in him. The intelligent student of social conditions may observe bright family physicians directing their warfare to an aching head, a distressed stomach, constipated bowels, or other organs, when the real source of the trouble is a defective eye; others, suspecting a defective eye, send the patients to a layman optician rather than to an ophthalmologist; still others consult an optician themselves; while multitudes sign petitions or write letters to legislatures, entreating them to legalize the illegal practice of ophthalmology by opticians, and, in divers other ways exhibit the legitimate fruits of an education defective in a "working knowledge of simple refraction." All these work untold harm to both the laity and the profession.

Thanks to a movement started last June by the Michigan State Medical Society, this question has passed its academic stage. The Michigan State Board of Registration in Medicine has notified medical colleges that, beginning next spring examination, all applicants for a license must demonstrate their possession of a "working knowledge of refraction," and that a failure to obtain 50 per cent. of possible standing will subject the applicant to refusal of license.

Leartus Connor, M.D., Detroit.

Carbolic Acid in Boils and Felons

To the Editor:—The treatment of boils, carbuncles, felons, in fact any local infection in its early stages by hypodermic injection of pure carbolic acid, has probably been used by others, but failing to find any mention of it in the literature, and having tried it on myself, I wish to report my method in order that it may be more widely known.

Having suffered from a boil on one hand and a carbuncle on the other, which ran their usual course, when others made their appearance, I was ready to experiment, and having tried without success to abort the first one by boring down into the center with a tooth pick wet with the acid, I went a step further with the second crop and injected the acid with a hypodermic syringe. To my great joy the pain instantly ceased (one must have boils to appreciate this), did not begin again, and the hard lump soon disappeared. Since then I have used the method sufficiently to satisfy myself and others – patients—that it is a cure.

The method consists in injecting pure carbolic acid into the center of the inflamed spot, taking pains to introduce the needle not at the most prominent point of the swelling, but rather to one side where the skin is sound and shows no signs of pointing. It is not necessary to count the drops, enough to make the tissue tense.

It stops the pain instantly, destroys the germs, and is absorbed so slowly that no harm comes from it.

H. D. Gardner, Scranton, Pa.

An Eye Bandage

To the Editor:—In The Journal, March 27, page 1033, Dr. Morley describes "An Eye Bandage and Its Method of Application." This bandage has all the good qualities claimed for it, as a number of years' experience has convinced me. But it is only fair to state that it was invented many years ago by the late Dr. Russell Murdoch of Baltimore, and has been regularly used at the Baltimore Eye, Ear and Throat Charity Hospital. Dr. Morley will find Dr. Murdoch's description in the *Ophthalmic Record* of 1904, and will I am sure regret having described as his own something which belongs to another.

Harry Friedenwald, Baltimore.

The Evolution of Refraction and Its Necessity

To the Editor:—In The Journal, March 27, page 1048, appeared a communication on the above subject by L. Haynes Buxton. Quoting from the third paragraph: "It was with much surprise that I read some of the statements contained in the paper by the late Dr. St. John Roosa, which appeared in The Journal, Feb. 13, page 543. My own personal and clinical experiences are so greatly at variance with the conclusions of Dr. Roosa that it is but just that they be recorded." This quotation, and, in fact, the whole letter, which gives admirable evidence of progressive thought conservatively expressed, so well represents not only my own views, but those of many other oculists, that it deserves a hearty endorsement.

Edward Lauder, Cleveland.

Medical Education and State Boards of Registration

COMING EXAMINATIONS

Arkansas: Three boards, each at Little Rock, April 13. Regular Sec., Dr. F. T. Murphy, Brinkley; Homeopathic Sec., Dr. P. C. Williams, Texarkana; Eclectic Sec., Dr. A. J. Widener, Little Rock.

District of Columbia: Washington, April 13-16. Sec., Dr. George C. Ober, 210 B St., S. E.

Illinois: Northwestern University Bldg., Chicago, April 15-17. Sec., Dr. J. A. Egan, Springfield.

New Mexico: Santa Fe, April 12. Sec., Dr. J. A. Massie.

Oklahoma: Guthrie, April 13. Sec., Dr. Frank P. Davis, Enid.

West Virginia: Huntington, April 13-15. Sec., Dr. H. A. Barbee, Point Pleasant.

Wisconsin: Park Hotel, Madison, April 13, Sec., Dr. J. V. Stevens, Jefferson.

COUNCIL ON MEDICAL EDUCATION

Fifth Annual Conference, held at Chicago, April 5

The Chairman, Dr. Arthur Dean Bevan, Chicago, presiding

The fifth annual conference of the Council on Medical Education of the American Medical Association was held at the Auditorium Hotel, Chicago, April 5. In his address Dr. Bevan reviewed briefly the past history of the Council and called attention to the most marked improvements in medical education. The work of the past year was reported by the secretary, Dr. N. P. Colwell, who gave some of the conditions found by the inspection of medical colleges and also gave in detail the status of medical education at the present time.

Reports were then presented by the chairman of the ten subcommittees on medical curriculum, as follows:

1. Anatomy, Including Histology and Embryology.—Dr. Charles R. Bardeen, Professor of Anatomy, University of Wisconsin, College of Medicine, Madison, Wis.
2. Physiology and Physiologic Chemistry.—Dr. Elias P. Lyon, Professor of Physiology, St. Louis University, School of Medicine, St. Louis.
3. Pathology and Bacteriology.—Dr. William T. Councilman, Professor of Pathology, Harvard Medical School, Boston.
4. Pharmacology, Toxicology and Therapeutics.—Dr. Torald Sollmann, Professor of Pharmacology and Materia Medica, Western Reserve University, Medical Department, Cleveland.
5. Medicine, Including Pediatrics and Nervous and Mental Diseases.—Dr. George Dock, Professor of Medicine, Tulane University of Louisiana, New Orleans.
6. Surgery, General and Special.—Dr. Charles H. Frazier, Professor of Clinical Surgery, University of Pennsylvania, Department of Medicine, Philadelphia.
7. Obstetrics and Gynecology.—Dr. J. B. DeLee, Professor of Obstetrics, Northwestern University Medical School, Chicago.
8. Diseases of the Eye, Ear, Nose and Throat.—Dr. George E. de Schweinitz, Professor of Ophthalmology, University of Pennsylvania, Department of Medicine, Philadelphia.
9. Dermatology and Venereal Diseases.—Dr. William A. Pusey, Professor of Dermatology and Clinical Dermatology, College of Physicians and Surgeons, Chicago.
10. Hygiene, Medical Jurisprudence and Medical Economics.—Dr. F. F. Wesbrook, Professor of Pathology and Bacteriology, University of Minnesota, College of Medicine, Minneapolis.

These reports recommended a curriculum which aggregated 4,400 hours. At a meeting of the chairmen held on the day preceding the conference, these reports had been compared, a few duplications of courses were eliminated, and the total hours for each section reduced as follows:

SUBJECT.	HOURS.
I. Anatomy, including histology and embryology	700
II. Physiology and Physiologic Chemistry, including 80 hours of Organic Chemistry	530
III. Pathology and Bacteriology	500
IV. Pharmacology, Toxicology and Therapeutics	240
V. Medicine, including Pediatrics and Nervous Diseases	890
VI. Surgery: General and Special	650
VII. Obstetrics, 180 hours, and Gynecology, 60 hours	240
VIII. Diseases of the Eye, Ear, Nose and Throat	140
IX. Dermatology and Syphilis	90
X. Hygiene, Medical Economics and Medical Jurisprudence	120
Total	4,100

These figures were voted to represent the maximum requirement of a medical curriculum covering four years of 32 weeks each of actual work. It was the opinion of those present that the curriculum should not be made a hard and fixed requirement with which all colleges should comply. Its chief value was considered to be in its suggestiveness and from the fact that it represented an exhaustive study by over 100 leading medical educators, representing all the subjects included in the curriculum.

Dr. George W. Webster, president of the Illinois State Board of Health, gave an address on "The Medical Curriculum from the Standpoint of the State Board."

Dr. Fleming Carrow, of the Michigan State Board of Registration in Medicine, gave an address on "The Character of the State License Examination." In this address and the discussion which followed, it was shown that the best means of differentiation between the graduates of schools of the "quiz compend" type and those which have been trained in laboratories, dispensaries and hospitals would be to give—in addition to written examinations—practical tests, wherein the applicant would be required to identify histologic specimens, urinary casts, bacteria, etc., under the microscope, or to point out certain tissues on the cadaver or even to examine patients.

In a paper entitled "Some Results of Higher Standards of Preliminary Education," Dr. Richard H. Whitehead, dean of the Medical Department of the University of Virginia, gave the results of higher requirements in that school. While the increase caused a reduction in the number of students it greatly raised the average quality. He added that while the south had some serious educational problems to work out, the Council should not lower its standards on that account. The south needed the standard as a goal to be striven for. In conclusion, Dr. Whitehead said: 'The day is not so very far off when there will exist the proper basis for high standards in medical education. Already the leaven of high ideals is working in at least three southern universities. And so, I say, do not worry about the south; it will work out its educational development in due time. In the meanwhile the Council can be of much service by stimulating, encouraging, helping—but not by lowering its standard."

Association News

RAILROAD RATES TO ATLANTIC CITY

Transportation Committee Announces Rate of One and a Half Fares for the Round Trip

The Transportation Committee announces that it has secured a rate of one and a half fares for the round trip to the Atlantic City session, June 7 to 12.

On a two cent basis, this rate is equivalent to the one fare rate on the old three cent basis. This rate applies to all parts of the United States, with the exception of the extreme western or Trans-Continental Passenger Association territory, for which a special rate has been made to the gate ways of the Western Passenger Association territory, where the one and a half fare rate applies

A special train (or more if necessary) has been arranged for from the Chicago district to Atlantic City, without change, via the Pennsylvania Lines. This is the only line reaching Atlantic City from the West without transferring and changing at Philadelphia. This train will leave Chicago Sunday, June 6, arriving at Atlantic City Monday, June 7.

A special train will be run by the Chicago & Alton from the West and Southwest from Kansas City and St. Louis, and special sleepers by the Chicago, Milwaukee and St. Paul, from the Northwest to Chicago, connecting directly with the Pennsylvania Special, thus providing for all who wish the most direct routes and the best possible accommodations.

The dates of sale of the tickets have been arranged sufficiently early to accommodate those who wish to attend the special societies' meetings in advance of the American Medical Association.

M. L. Harris, Chairman.

NEW MEMBERS

List of new members of the American Medical Association for the month of March, 1909:

ALABAMA
Clayton, O. W., Sylvania.
Fuller, E. L., Parrville
Goodloe, J. R., Demopolis.
Greene, P. F., Clayton
Greer, W. H., Tuscumbia.
Hogan, R. E., Bessemer
Inge, H. T., Mobile
Reid, A. M., Florence
Watson, C. M., Florence
Williams, V. H., Calera

ARIZONA
Rosenberry, A. J., Jerome.

ARKANSAS
Amis, J. C., Ft. Smith
Baker, J. J., Magnolia
Holt, C. S., Ft. Smith

CALIFORNIA
Bantel, L. A., Redding
Card, C. W., San Francisco.
Cowan, A. B., Fresno
Ellis, J. A., Alameda
Gillespie, J. A., Kingsbury.
Frizell, J. P., Yreka
Huntington, W. O., Oakland.
Johnson, E. E., Palo Alto
Krull, Frank, Sacramento
Lennon, M. B., San Francisco
McClurg, Katherine, Oakland
Molony, J. J., San Francisco
Morris, Margaret M., Los Angeles
Pitts, A. D., Point Arena
Schulze, O. T., Napa
Smith, A. M., Oakland
Stewart, J. T., Los Angeles.
Thomas, H. G., Oakland
Walker, B. F., Stockton
Williams, F. H., Selma

COLORADO
Agan, J. M., Pierce
Bartelt, E. E., Lamar
Bolton, L. C., Cedaredge.
Collins, E. W., Denver
Copeland, W. C., Hotchkiss.
Crisp, J. D., Denver.
Crosby, L. G., Ouray.
Cummings, G. D., Florence
Depeyre, L. N., Colorado Springs.
Garwood, H. G., Gorham.
Geith, C. R., Wellington
Green, A. S., Denver.
Healy, M. D., Denver.
Howard, C. J., Boulder.
Lassen, Fritz, Pueblo.
Leinbach, R. C., Shoshone.
Yacoubl, H. B., Paonia.

CONNECTICUT
Bedford, A. L., Waterbury.
Chillingworth, F. P., Haddam.
Martelle, H. A., Hartford
Simmons, W. N., Tolland

DELAWARE
Carey, H. M., St. George s.

DISTRICT OF COLUMBIA.
Frankland, W. A., Washington
Goodman, W. R., Washington.
Groover, T. A., Washington.
Hunt, P. C., Washington
Jenner, N. R., Washington
Kerr, H. H., Washington
Magee, G. H., Washington
Mason, E. L., Washington
Riggles, J. L., Washington
Roy, P. S., Washington
St. Clair, F. A., Washington
Wilkinson, W. W., Washington.

FLORIDA
Bouchelle, L. B., New Smyrna.
Halton, John, Sarasota
Henry, H. W., Lake Weir
McKinstry, Jr., J. F., Gainesville.
Roberts, J. L., Plant City
Sandusky, C. M., Jacksonville.

GEORGIA
Beauchamp, J. C., Williamson.
Benedict, S. C., Athens
Brown, V. L., Fort Valley.
Charlton, T. J., Savannah.
Glenn, R. P., Columbus
Goolsby, R. C., Forsyth
Johnson, J. E. L., Roberta.
McNeill, R. J., Danbury.
Miller, R. L., Waynesboro
Moore, B. R., Temple
Rawlings, Wm., Sandersville.
Wall, F. M., Dodge

ILLINOIS
Carlisle, J. W., Robinson
Carr, Jesse W., Sheridan
Carter, A. R., Murphysboro.
Cheadle, C. M., Ashton
Code, W. E., Chicago
Everett, W. W., Highland.
Fast, H. D., Mackinaw
Gibson, O. N., Eldorado.
Gunn, R. M., Montrose
Hayden, A. A., Chicago.
Heitman, J. H., Tioga.
Hill, A. S., Chicago
Kan, A. M., Chicago
Kring, C. H., Livingston
Laughlin, E. O., Paris
Lillie, C. W., E. St. Louis
Loeser, Wilhelm, Chicago
Martin, W. B., Naperville
Moessner, F. R., Chicago
O'Reilly, W., Glasgow
Reticker, J. K., Quincy
Rockefeller, C. D., Bunker Hill.
Schneider, G. A., Chicago
Watson, Walter, Mt. Vernon.

INDIANA
Baxter, J. W., Lanesville.
Bear, L. H., Vevay
Bowers, H. C., Scircleville
Brumbaugh, M. T., Foraker
Caraway, S. H., Indianapolis.
Clokey, M. C., Huntington
Coomes, M. J., Batesville
Fauve, A. E., Fort Wayne
Fermier, P. G., Leesburg
Gabe, H. E., Indianapolis
Gibbs, E. R., Greenfield
Good, C. H., Warren
Grim, Simon, Elberfelt
Johnston, S. A., Indianapolis.
Kennedy, Frank, Goodland
Kirkpatrick, J. C., Roll
Kitchen, W. B., Indianapolis
McPherson, S. L., Washington
Moore, W. H. H., Lafayette
Ostrowski, R. O., Hammond.
Powers, U. G., Albany
Richardson, G. G., Van Buren.
Siders, W. B., Millersburg
Smith, M. S., LaPorte
Stone, C. E., Shoals
Sturm, E. A., Jasper
Swadener, E. L., Jeffersonville.
Wilcox, F. T., LaPorte
Wolfe, F. E., Danesville.

IOWA
Aschenbrenner, C. F., Pella.
Bellinger, M. J., Council Bluffs.
Bruce, J. H., Dickens
Canfield, H. W., Baxter.
Cobb, E. A., Harlan.
Gantz, S. B., Albia
Gibson, C. G., Sioux City.
Harris, G. W., Marshalltown.
Heidel, G. A., Muscatine.
Hart, U. L., Numa.
Johnson, E. M., Afton.
King, D. H., Batavia
Kuhl, A. B., Davenport
DeLespinasse, G. A. F., Orange City.
Logan, F. W., Fenton
Merritt, E. A., Emerson.
Meyers, J. F., Elliott
Noyes, A. A., Mason City.
Peterson, R. A., Swedesburg.
Pugsley, G. W., Moorhead
Vorweck, A. H., Burlington.
Watson, E. J., Knowlton.
Whitwall, W. R., Hastings.

KANSAS
Bolton, J. W., Iola.
DeTar, M., Kinsley.
Lear, R. C., Gardner
McDonough, W. C., Topeka.
Munford, R. H., Greeley.
Outland, J. H., Kansas City
Reinemund, C. A., Junction City.
Sloss, H. J., Meade.

KENTUCKY
Adington, E. L., Rocky Hill Sta.
Baxter, W. E., Frankfort.
Blackford, C. M., Hickman.
Cassady, R. B., LaGrange
Cornelius, Preston, Berea.
Craddock, J. W., Bonnieville
Donan, Jr., D. C., Horse Cave.
Edwards, C. L., Sebree.
Fitzpatrick, Joseph, Bosworth.
Gambill, Jr., J. J., Blaine
Gardner, W. H., Elizabethtown.
Hale, J. G., Harlin Springs
Hester, J. H., Munfordville
Hoffman, C. G., Louisville.
House, J. B., Scottsville.
House, T. B., Hopkinsville.
Irwin, W. E., Owensboro
Jones, O. G., Smith Mills.
Keys, B. B., Murray.
Koehler, H. H., Louisville
Land, J. A., Locust Branch.
London, Finis, South Union.
May, E. K., Allen.
Moore, C. H., Canmer
Robertson, G. A., Louisville.
Simpson, H. B., Breeding.
Simpson, Sidney, Ashbrook
Smith, Henry, Calhoun
Stallard, J. M., Sparta
Taylor, S. D., Beaver Dam.
Walton, J. P., Central City.

LOUISIANA
Allums, C. C., Ringgold.
Bailey, C. A., Athens
Cole, C. G., New Orleans.
Gandy, E. R., Westlake.
Johnson, J. R., Amite
Jones, H. P., New Orleans.
Kelly, J. L., Rochelle
Maestri, Angelo, New Orleans.
Mann, Gustav, New Orleans
Prejean, L. A., Scott.
Robichaux, E. C., New Orleans.
Spurrell, H. C. H., New Orleans.
Stromer, George, Broussard

MAINE
Card, A. M., Head Tide
Sawyer, A. D., Fort Fairfield
Small, A. E., Winter Harbor

MARYLAND
Billingslea, J. S., Armiger.
Buell, M. C., Cumberland
Burrow, W. T., Baltimore.
Coe, J. A., T. B.
Conroy, T. L., Frostburg.
Deetjan, Christian, Baltimore
Fisher, W. A., Jr., Baltimore
Hammerbacher, G. M., Baltimore.
Hodges, W. R., Cumberland
Miller, Irving, Baltimore
Norment, R. B., Baltimore
Perrie, A. H., McKendree
Schultze, Anna D., Baltimore
Schwartz, W. F., Baltimore
Stauffer, J. H., Baltimore.
Wilson, R. T., Baltimore.
Wyse, W. P. E., Pikesville.

MASSACHUSETTS
Allen, S. W., Boston
Baker, F. H., Worcester.
Barker, W. W., Boston
Bloog, G. W., Fall River.
Burgess, C. J., Lawrence
Clark, A. U. F., Westboro.
Curry, E. F., Sagamore
Davis, M. F., Boston

Ellis, A. H., North Dane.
Evans, M. H. A., Dorchester.
Fernald, G. G., Concord Junction.
Griswold, M. L., Uxbridge.
Heald, C. G., East Pepperell.
Hoban, J. J., N. Chelmsford.
MacLeod, N. M., Beverly.
McClusky, H. L., Worcester.
Myers, Elizabeth Y., Springfield.
Myers, Edmund, Boston.
Shattuck, G. C., Boston.
Wirth, E. P., Edgartown.

MICHIGAN

Burley, J. H., Almont.
Fox, T. G., Raber.
Galbraith, D. A., Lansing.
German, F. D., Franklin.
Heitger, J. D., Kalamazoo.
Landon, H. W., E. Lansing.
Lehman, C. G., Palmyra.
Pinkerton, W J., Bessemer.
Southwick, C. R. W., Weldman.
Southworth, B. H., Schoolcraft.
Turner, R. J., Anchorville.
Waller, W. F., Frontier.

MINNESOTA

Beise, R. A., Brainerd.
Boeckmann, Ergil, St. Paul.
Cannon, Harry, St. Paul.
Cosman, E. O., Minneapolis.
Eshelby, E. C., St. Paul.
Halloran, F. J., St. Paul.
McGaughey, H. F., Winona.
Moir, W. W., McKinley.
Scherer, C. A., Ruthton.
Whipple, C. D., Minneapolis.

MISSISSIPPI

rd, E. F., Vicksburg.
n, C. W., Rosedale.

MISSOURI

., St. Louis.
., St. Louis.
ury, St. Louis.
on, H. N., St. Louis
McNay, A. L., Pacific.
Riesmeyer, L. T., St. Louis.
Vitt, R. S., St. Louis.

NEBRASKA

Deemer, G. W., Chadron.
Meredith, G. W., Ashland.
Wekesser, H. P., Lincoln.

NEVADA

Wheeler, E. A., Goldfield.

NEW JERSEY

Banister, R. L., Newark.
Bidwell, H. G., Jersey City.
Britton, C. P., Trenton.
Dieffenbach, R. H., Newark.
Douglas, James, Morristown.
Frohwein, Ida L. Haverstick, Elizabeth.
Kirk, G. E., Camden.
Koppel, Joseph, Jersey City.
Larkey, C. J., Bayonne.
Lippincott, Jesse D., Newark.
MacMurrough, F. K., Jersey City.
Mayer, F. W., Jersey City.
McCroskery, J. H., Weehawken.
North, James, Atlantic City.
Robinson, M. N., Newark.
Slack, C. M., New Brunswick.
Suydam, J. L., Jamesburg.

NEW, MEXICO

Phillips, W. W., Roswell.

NEW YORK

Bandler, C. G., New York City.
Bird, J. T., New York City.
Bonetecow, R. B., Troy.
Burns, G. C. H., Central Islip.
Cary, W. H., Brooklyn.
Chapin, H. D., New York City.
Combes, A. C., Elmhurst.
Crumb, J. M., South Otselic.
Daniels, F. H., New York City.
Dietrich, A. E., Bay Shore.
Doescher, T. F., Albany.
Eising, E. H., New York City.
Fagan, P. J., New York City.
Fischer, R. M., Wanakena.
Folger, Rupert, Whitestone.
Gray, H. B., College Point.
Halley, Erving, Willard.
Holdridge, W. H., New York City.
Jaques, A. D., Lynbrook.
Kurtz, H. T., Highland Falls.
Meagher, J. F. W., Brooklyn.
Meyer, D. W., Brooklyn.
Miles, C. C., Greenport.
Otis, J. C., Poughkeepsie.
Pierson, Helena B., Albion.
Pratt, W. H. B., Brooklyn.
Reynolds, W. A., Albany.
Rodgers, W. A., New York City.
Schumer, Henry, New York City.
Schwelkart, F. J., Elml
Stoughton, H. W., Cha
Stuart, S. H., Hornell.
Sulzman, F. M., Troy.
Thomson, W. R., New York City.
Tieck, G. J. E., Brooklyn.
Walter, Josephine, New York City.
Welch, J. E., New York City.
Wendover, W. W., Warwick.
Whitmore, J. E., Buffalo.
Wolff, H. T., Yonkers.
Wood, W. C., Brooklyn.
Woodruff, W. S., Mt. Vernon.
Zwisohn, L. W., New York City.

NORTH DAKOTA

Busch, U. F., Fargo.
Eltun, F. J., Velva.
Rogers, G. F., Fargo.
Stone, E. C., Balfour.

OHIO

Brett, J. H., Cleveland.
Ellis, L. A., Van Wert.
Fisher, E. A., Yorkshire.
Hough, C. A., Lebanon.
Lanzer, A. H., Cleveland.
McGay, N. P., Shiloh.
O'Hara, P. H., Lewisburg.
Rike, W. H., Versailles.
Yaggi, H. K., Salem.

OKLAHOMA

Allen, J. R., Caddo.
Ruble, G. W., Wagoner.

OREGON

Dix, G. E., Marshfield.
Parker, H. G., Portland.

PENNSYLVANIA

Abbott, F. C., Philadelphia.
Ahlers, G. L., Allegheny.
Bausch, F. R., Allentown.
Beck, C. E., Portland.
Bliss, G. D., Altoona.
Bowles, L. C., Grampian.
Burhenn, C. G., Jeannette.
Butler, T. J., S. Bethlehem.
Cawley, J. I., Springtown.
Christine, G. M., Philadelphia.
Clark, O. C., Worthington.
Cleaver, P. R., Johnstown.
Darlington, E. E., Harrisburg.
Darlington, H. H., Concordville.
Deehan, S. J., Philadelphia.
Everett, S. A., Freeland.
Fisher, Lewis, Philadelphia.
Fitzpatrick, I. L. J., Philadelphia.
Franklin, M. B., Philadelphia.
Gordon, J. K., Chambersburg.
Grube, J. M., Punxsutawney.
Guthrie, K. S., Philadelphia.
Hayes, T. R., Bellefonte.
Heed, C. R., Philadelphia.
Henderson, W. L., E. McKeesport.
Henry, T. J., Apollo.
Hill, G. A., Philadelphia.
Hower, H. V., Mifflinville.
Ingraham, E. R., Masontown.
Jenkins, J. C., Lititz.
Jones, C. J., Philadelphia.
Johansson, A. H., Warren.
Kennedy, G. W., Sharon.
Kevin, R. O., Philadelphia.
Landry, W. A., Chester.
Large, C. P., Meyersdale.
Lehr, M. D., Lykens.
Leonard, C. F., Philadelphia.
McCuaig, J. E., Erie.
McCune, C. E., Buena
McKeldin, R. A., Phil
Moffitt, G. R., Harrisl
Murfin, J. G., Philade
Nolan, T. F., Reynolds
Ord, E. Y., W. Elizabe
Park, W. E., New Milf
Patton, J. M., Vanderg
Quinn, L. W., DuBois.
Raiman, W. A., Swarthn
Reichard, N. W., Bangor.
Rohrbach, H. O., Freemans
Ross, J. H., Philadelphia.
Rouse, W. J., Williamsport.
Ruch, C. F., Summit Hill.
Rupert, Mary P., Philadelphi
Russell, H. B., Sheffield.
Schlemm, H. E., Reading.
Schneideman, Florence M., Phi delphia.
Seifert, F. R., Philadelphia.
Senn, John, Williamsport.
Shirey, C. A., Manor.
Shull, J. H., Stroudsburg.
Smith, L. C., Lawrenceville.
Stauffer, H. J., Jeannette.
Strickler, A. H., Waynesboro.
Thorp, J. S., Straight.
Troxell, W. C., Macungie.
Voigt, A. C., Hawley.
Wilson, O. H., Philadelphia.
Wagner, V. C., W. Pittsburg.
Woods, A. H., Bryn Mawr.
Whitall, J. D., Philadelphia.
Young, J. H., Lansford.
Zerbe, J. I., Polk.

RHODE ISLAND

Howlett, H. H., Walkerton.
Jeffery, Aaron, Newport News.
Nowlin, J. B., Richmond.
Payne, R. J., Fredericksburg.
Rawls, D. S., Suffolk.
Scott, J. W., Gordensville.
Shipp, J. B., Norfolk.
Simms, T. J., Newport News.

SOUTH CAROLINA

Eaddy, A. G., Timmonsville.

SOUTH DAKOTA

Moore, D. V., Yankton.

TENNESSEE

Ayres, J. C., Memphis.
Butler, H. T., Union City.
Harris, W. H., Pikeville.
Horton, J. W., Chattanooga.
Hayes, Jesse T., Oliver Springs.

TEXAS

Jackson, Eugene, Elmo.
Weeks, W. B., Maypearl.
Woolsey, Jefferson, San Antonio.

UTAH

Irvine, A. R., Salt Lake City.
Jorgenson, H. C., Payson.
Rich, W. L., Garland.

VERMONT

Tanner, J. D., Burlington.

VIRGINIA

Baker, B. N., Norfolk.
Black, A. J., Roanoke.

WASHINGTON

Carlsen, E. L., Tacoma.
Nadean, Fonda, Seattle.
Petit, H. L., Chehalis.

WEST VIRGINIA

Peck, S. P., Hinton.
Stump, J. L., Charleston.

WISCONSIN

Gendron, A. E., River Falls.
Holz, A. P., Seymour.
Morris, E. K., Merrill.
Nutt, C. R., Plymouth.
Oatway, W. H., Lake Mills.
Schnetz, L. N., Racine.
Sharp, E. L., Fox Lake.
Smith, E. A., Milwaukee.

HAWAII TERRITORY

Hodgins, A. G., Honolulu.

Queries and Minor Notes

Anonymous Communications will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed.

HAINES' TEST FOR GLYCOSURIA

To the Editor:—Please give the formula, advantages, and disadvantages of Haines' reagent for the detection of glycosuria.

Z. Y.

Answer.—The formula of Haines' solution is as follows:

	gm. or c.c.		
Copper sulphate	2	or	gr. xxx
Water	15		℥ss.

leum may be substituted for gasoline and when the amount used must be large would be much safer. Fumigation by sulphur dioxid has been recommended in cases in which it is not possible to make direct applications. This is probably the best method when a whole house is to be treated. Hydrocyanic gas is very fatal to the bugs, but is not to be recommended on account of the extreme danger of poisoning in handling it.

2. By the cyanogen method is meant the evolution of hydrocyanic acid gas. This is best generated by first preparing a diluted sulphuric acid containing 1.5 parts of sulphuric acid mixed with 2.25 parts of water, taking care to add the acid to the water in a non-metal vessel capable of withstanding the heat which will be caused. One part of the potassium cyanid should then be tied in a bag so arranged that it can be lowered into the acid by a cord passing out of the room. The operator should retire and then lower the bag into the acid. For plant fumigation about 1 ounce or 25 gm. of potassium cyanid per 100 cubic feet should be used. For room disinfection a greater amount is necessary. This gas is a fatal poison for all forms of animal life. Its extremely poisonous character makes great care necessary in handling it and almost forbids its employment about the household. It is of especial value in ridding greenhouses, granaries, etc., of insects, but is less useful as a disinfectant against bacteria. It has few advantages over sulphur dioxid in ridding a place of vermin, and its germicidal power is inferior to that of formaldehyd.

The Public Service

Army Changes

Memorandum of changes of stations and duties of medical officers, U. S. Army, week ending April 3, 1909.

Farr, C. W., capt., granted sick leave of absence to June 1, 1909.

Hopwood, L. L., 1st lieut., granted leave of absence for 1 month.

Brooks, W. H., capt., granted sick leave of absence for 1 month.

Truby, A. E., major, granted leave of absence for 2 months, about June 15, 1909.

Bispham, W. N., capt., granted leave of absence for 1 month.

Marrow, C. E., major, ordered to duty at the Presidio, San Francisco, at the expiration of the leave of absence heretofore granted him.

Miller, E. W., capt., ordered to duty at Fort Williams, Me., on the expiration of the leave of absence heretofore granted him.

Wilson, W. H., major, granted leave of absence for 1 month, 20 days.

McAndrew, P. H., capt., relieved from duty at Fort Slocum, N. Y., and ordered to Fort Mackenzie, Wyo., for duty.

Brooks, W. H., capt., relieved from duty at Fort Mackenzie, Wyo., and ordered to Presidio, San Francisco, Cal., for duty.

Wilson, W. H., major, relieved from duty at Fort Hamilton, N. Y.; will sail from San Francisco, June 5, 1909, for Philippine service.

Wilson, J. S., major, granted leave of absence for four months, when relieved from duty in the Philippines Division.

Mason, C. F., major, relieved from duty in the office of the Surgeon-General of the Army, to take effect May 1, 1909, and ordered to duty with the Isthmian Canal Commission.

Duncan, L. C., capt., relieved from duty at Fort Missoula, Mont., and ordered to sail June 5, 1909, from San Francisco for Philippine service.

Trotter-Tyler, Geo., M. R. C., ordered from Fort Adams, R. I., to Fort Howard, Md., for temporary duty.

Lemmon, Robt., M. R. C., ordered from Fort Howard, Md., to Fort Jay, N. Y., for temporary duty.

Campbell, G. F., M. R. C., relieved from duty at the Pacific Branch, U. S. Military Prison, Alcatraz Island, Cal., and ordered to Fort Wingate, N. M., for duty.

Anderson, E. A., M. R. C., when relieved at Fort Wingate, N. M., ordered to Alcatraz Island, Cal., for duty at the Pacific Branch, U. S. Military Prison.

Kierulff, H. N., M. R. C., relieved from duty at Fort Apache, Ariz., and ordered to Fort Missoula, Mont., for duty.

Waddell, R. W., dent. surg., granted leave of absence for 1 month, 18 days.

Carpenter, Alden, dent. surg., ordered to Fort Slocum, N. Y., for temporary duty.

Navy Changes

Changes in the Medical Corps, U. S. Navy, for the week ending April 3, 1909:

Connor, W. H., appointed acting asst.-surgeon from March 24, 1909.

Robbins, I. W., acting asst.-surgeon, ordered to duty at the Naval Hospital, Mare Island, Cal.

Public Health and Marine-Hospital Service

List of changes of stations and duties of commissioned and other officers of the Public Health and Marine-Hospital Service for the seven days ended March 31, 1909.

Young, G. B., surgeon, relieved as chairman of board of medical officers convened under bureau order of March 23, 1909.

Cofer, L. E., P. A. surgeon, relieved from temporary duty at Hygienic Laboratory and directed to proceed to Reedy Island Quarantine Station and assume temporary command.

Anderson, John F., P. A. surgeon, detailed to represent the service at the annual meeting of the American Association of Pathologists and Bacteriologists, to be held in Boston, April 8, 1909.

Boggess, J. S., P. A. surgeon, granted 1 day's leave of absence, March 28, 1909.

Creel, R. H., P. A. surgeon, detailed as chairman of board of medical officers convened under bureau order of march 23, 1909.

Roberts, Norman, P. A. surgeon, granted 4 days' leave of absence from March 28, 1909.

Preble, Paul, asst.-surgeon, on arrival of Asst.-Surgeon F. A. Ashford, directed to proceed to Baltimore and report to the medical officer in command for duty and assignment to quarters.

Kimmet, William A., acting asst.-surgeon, detailed as recorder of board of medical officers convened under bureau order of March 23, 1909.

Robertson, Herman, acting asst.-surgeon, granted 23 days' extension of leave of absence from Feb. 8, 1909, on account of sickness.

Stewart, W. J. S., acting asst.-surgeon, granted 7 days' leave of absence from March 26, 1909.

BOARD CONVENED

Board of medical officers convened to meet at the Marine Hospital, Port Townsend, Wash., March 26, 1909, for the purpose of conducting a physical examination of a captain of the United States Revenue-Cutter Service. Detail for the board: Surgeon W. G. Stimpson, chairman; P. A. Surgeon J. H. Oakley, recorder.

Health Reports

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended April 2, 1909:

SMALLPOX—UNITED STATES

Arkansas: Allbrook, Jan. 1-March 25, 40 cass.

California: Los Angeles, Feb. 27-March 6, 2 cases; Oakland, Feb. 28-March 7, 1 case; Sacramento, Jan. 1-31, 22 cases; Feb. 1-28, 7 cases.

Georgia: Macon, March 14-21, 1 case.

Illinois: Chicago, March 13-20, 2 cases; Danville, March 14-21, 1 case; Galesburg, March 6-13, 1 case; Peoria, Feb. 13-20, 24 cases.

Indiana: LaFayette, March 8-22, 5 cases.

Kansas: Kansas City, March 6-20, 12 cases; Topeka, March 13-20, 8 cases; Wichita, March 6-20, 5 cases.

Kentucky: Fulton, Feb. 1-22, 27 cases; Lexington, March 6-20, 2 cases; Newport, Jan. 20-March 20, 34 cases; Paducah, March 6-13, 2 cases.

Louisiana: New Orleans, March 6-20, 3 cases, imported; Winnfield and vicinity, Jan. 1-March 24, 33 cases.

Massachusetts: Boston, March 13-20, 2 cases; Lawrence, March 6-13, 1 case.

Minnesota: Minneapolis, March 6-13, 3 cases; St. Paul, Jan. 1-31, 37 cases.

Missouri: Kansas City, March 6-20, 4 cases; Rich Hill, Dec. 5-March 20, 5 cases.

Montana: Butte, March 9-16, 1 case.

Nebraska: Lincoln, Feb. 1-21, 8 cases.

New Jersey: New Brunswick, March 6-20, 2 cases; Perth Amboy, March 24, 18 cases; Plainfield, March 6-20, 3 cases.

New York: Buffalo, March 13-20, 1 case.

Ohio: Cincinnati, March 5-19, 19 cases; Columbus, Dec. 26, March 2, 14 cases.

South Carolina: Winnsboro, Feb. 21-March 21, 5 cases.

Tennessee: Knoxville, March 6-20, 5 cases; Murfreesboro, March 15-31, 1 case; Nashville, March 13-20, 4 cases.

Texas: El Paso, March 9-16, 3 cases; Fort Worth, Feb. 1-28, 3 cases; Galveston, March 5-12, 1 case; Houston, Feb. 28-March 13, 2 cases; Laredo, March 19, 1 case; San Antonio, March 13-20, 2 cases.

Virginia: Richmond, March 13-20, 1 case.

Washington: Spokane, March 6-13, 1 case; Tacoma, Jan. 24-Feb. 7, 11 cases; Mar. 7-14, 4 cases.

Wisconsin: Appleton, March 13-20, 1 case; La Crosse, March 6-20, 3 cases; Milwaukee, Feb. 28-March 20, 24 cases.

SMALLPOX—FOREIGN

Algeria: Algiers, Feb. 1-28, 20 deaths.

British Honduras: Stann Creek, March 4-11, 6 cases, 1 death.

Canada: Halifax, March 6-13, 2 cases; Yarmouth, March 21-27, 1 case.

China: Tientsin, Jan. 16-23, 4 cases, 1 death.

Egypt: Alexandria, Jan. 14-28, 6 cases; Cairo, Feb. 6-8, 68 cases, 33 deaths.

France: Paris, Feb. 27-March 6, 5 cases.

Great Britain: Bristol, Feb. 27-March 6, 5 cases.

Greece: Athens, Feb. 27-March 6, 1 death.

India: Bombay, Feb. 16-23, 24 deaths; Calcutta, Feb. 6-13, 171 cases; Madras, Feb. 13-19, 1 death; Rangoon, Feb. 6-13, 6 deaths.

Italy: General, Feb. 21-March 7, 14 cases; Florence, March 3-10, 2 cases; Naples, Feb. 22-March 6, 15 cases.

Japan: Kobe, Feb. 13-20, 4 cases, 1 death.

Java: Batavia, Feb. 6-13, 3 cases.

Portugal: Lisbon, March 6-13, 6 cases.

Russia: Moscow, Feb. 20-27, 32 cases, 5 deaths; Odessa, Feb. 27-March 6, 6 cases; St. Petersburg, Feb. 13-20, 7 cases, 1 death.

Siberia: Vladivostok: Feb. 4-14, 1 case.

Spain: Valencia: Feb. 19-26, 5 cases.

Turkey: Smyrna, Jan. 29-Feb. 26, 5 deaths.

YELLOW FEVER

Barbadoes: March 14-20, 2 cases.

Mexico: Mexcanu, vicinity, March 13-20, 2 cases, 1 death.

CHOLERA

India: Bombay, Feb. 16-23, 5 deaths; Calcutta, Feb. 6-13, 17 deaths; Rangoon, 7 deaths.

Russia: Charkov, March 10, 4 cases; Jaroslav, to March 7, 59 cases, 26 deaths; Romano-Borissglabsk, March 13, present; St. Petersburg, March 6-11, 43 cases, 15 deaths.

PLAGUE

Azores: Fayal, March 16, present; Terceira, Feb. 1-28, 15 cases, 5 deaths.

Chile: Iquique, Feb. 16, 14 cases, in lazaretto.

India: Bombay, Feb. 10-23, 94 deaths; Calcutta, Feb. 6-13, 12 deaths; Rangoon, 14 deaths.

Peru: General, Feb. 13-20, 80 cases, 40 deaths; Callao, 7 cases, 3 deaths; Lima, 5 cases, 3 deaths.

cation to the art or profession elected by the student may make him more proficient in the applied science so far as it is taught him, it also makes initiative less probable and prevents a just appreciation of new methods or of alleged advances in that science. 4. Is it not true that specialism is running riot in educational processes at the present time, not alone in medicine, but everywhere? Would it not be better for the man and for mankind ten years after the doctorate has been bestowed should he have the broader foundation even at the expense of some finish in the superstructure? We must recognize three classes of students in our colleges: Those who will plan to enter the postgraduate medical school, as Harvard or Johns Hopkins; those who will demand a special course chiefly of those subjects fitting them for entrance on the medical course, and those who may or may not be induced to take the first degree, depending on individual circumstances. Many literary colleges are in the habit of accepting students for their freshmen classes when certified by certain preparatory schools, but do not accept such certificates from other preparatory schools. Again, in many institutions, a student coming from another college will be received into temporary standing on college comity, his final standing being determined after the student shows what is in him. Some plan combining these questions should be devised whereby certain institutions could be privileged to certify their students to the medical college. Should the literary college abuse the privilege, it can be withdrawn. A student admitted on college comity would not be given standing at once as a member of the second year class, although he would be permitted to take the subjects for the second year, or a combination of studies from the first and second year, omitting those that he has already gone over. His work in the laboratories and in the recitation room for a definite period, until the mid-year examinations for example, will give ample opportunity for the faculty to ascertain his ability. They will be able to determine (1) whether it will be possible for him to continue in advanced standing or not, and if the degree of possibility is sufficient to make it desirable for him to do so; and (2) if it be desirable, his conditions, if any. If he be admitted to the second year with conditions, all conditions belonging to the first year must be removed by the end of the year before he can enter on the third year. Of course, any conditions for second year subjects should be governed by the same rules as apply to his classmates who have taken the first year.

As many medical schools are now organized, this plan would permit most of the students pursuing biologic electives in the better equipped colleges to save a year in the two courses without lowering the requirements in any way. At the same time, by the control of the individual, it would eliminate those who are not fitted for this condensation of courses. There are evidences of changes in the medical curriculum which may prevent the working of the plan as detailed. Should these changes result in a medical course of five years, the plan will permit the condensed course to consume but eight years in place of nine. It is worthy of discussion, whether it would not be better for the community to make such a plan possible rather than to begin specializing too early as some of the proposed changes in lengthening the medical course might do. A student who has completed his undergraduate course probably will be a better trained man after three years in medicine in such a school than his fellow students would be with four years of medical study following a less thorough preliminary training. Besides, the possessor of a first degree would not be apt to select the school of this standing, unless he failed to keep up somewhere else, when the very change would arouse suspicion. In view of the distrust that exists in some quarters, it might be politic, should any plan for comity be adopted, to have a confederation of institutions voluntarily placing themselves under the oversight of some organization entirely independent of them and whose character and reputation would insure that the oversight would be real and not perfunctory merely. In the procession and progress of events a new educational system will be evolved of necessity, and the present haphazard condition, misnamed system, will be replaced by one where the first degree will be bestowed at the time when the required studies for a liberal culture end, and before the proper time for electives begin.

Preliminary and Graduation Requirements for the Medical Course in Terms of Work Done

Dr. Edward Jackson, *Denver*: In this paper I discuss the practicability and importance of having a recognized standard of the work to be done, apart from the time required by the average student to do the work. Some conception of the purpose and work to be done must be formed in the mind of the educator or legislator, along with some understanding of the capacity of the average student and the time properly to be spent in education before any rational time standard can be carried out. However, the time standard is in general use in colleges, college associations, state laws and the requirements of boards of medical examiners. It has in one direction great elasticity; it permits one teacher to use the time in teaching certain parts of his subject; while another can select quite different parts of the subject on which to instruct his students. But in another direction it is undesirably rigid. As applied to the medical course it may compel the student to pass four years in a medical college, when a part of the subjects studied there could be better studied in some other institution. It compels the student who, by reason of more extended and thorough preliminary study, could complete the medical course in three years, to spend four years in a medical school, part of the time wasted in going over work which he has already been taught, perhaps more thoroughly. It prevents students from taking a combined general academic and medical course which would better fit them for their lifework unless they are willing to devote unnecessary time to it, or take the combined course in an institution that can give both courses. The framing of a standard curriculum in terms of work to be done is quite practical. Something of the sort is done by everyone who writes a text-book, or lays out a course of instruction for students, or examines students, without any definite idea of what they should know after having conformed to a given time requirement. Such a standard could be given all necessary flexibility by provision for electives, and also variations at the judgment of the instructor. It could be revised by a representative body as frequently as might seem desirable. The discussion as to what it should include would have great value in bringing about a better general understanding of what the preliminary training and professional education of the physician ought to be; would promote professional unity, and furnish a rational basis for the plans of educators.

Discussion on Papers of Drs. McIntire and Jackson

Prof. Robert N. Blake, *South Bethlehem, Pa.*: Speaking entirely from the point of view of one connected with a college that is detached from a medical school and without any affiliation with it, Dr. Jackson's paper is suggestive. It shows the spirit of unrest which is at work in medical schools as well as in literary and college circles. The subject under discussion is really the complete training of the physician. The physician occupies a unique position among men. He comes into closer touch with the people than any other professional man. In Germany, the work of the physician and his services are rapidly taking the place of the work of the minister or professor and his services, in so far that one is declining and the other rising. This conception of the value of the work of the physician has been re-emphasized recently in our own country in a report by President Pritchett of the Carnegie foundation, under the heading, "The Profession of Medicine versus the Business of Medicine." The physician, above all men, should be adequately trained, not only in those sciences which deal with health and disease, but in such a way as to make him a broader, a more cultured, sympathetic, humane man, and the question of whether his education shall cover a year or two more is one of secondary importance.

Prof. Melvine A. Brannon, University of North Dakota: There has been great improvement in the actual requirements, but there is need of continued progress, and this conference is one of the agencies through which the needed progress should be secured. Manifestly, the time element is not a satisfactory standard alone for measuring work. This is recognized in manufacturing and business. Piecework of a certain quality is usually demanded as a companion of time standards. If this is practical in material matters, it would seem that a test of efficiency should accompany the time standard in the progress of activities that are far less tangible, such as training the mind and developing character. In order to secure proper standards for training physicians of the highest possible efficiency, it is necessary to recognize and to deal with certain obstacles which oppose or seriously hinder the desired changes. In the first place, we have no central, unifying agency. The various state boards of medical examiners have approached such an authority in so far as they have become reciprocal, but reciprocity embraces comparatively few states at present. The American Medical Association has done much in the movement of advancing and unifying the educational requirements of medical colleges. Notwithstanding all this, a wide variation in content of the work is offered in the preliminary and graduation requirements of medical colleges. A serious difficulty in the way of standardizing and securing actual requirements both in the preliminary and professional work of medical schools is the competition for students. Undoubtedly, the proprietary medical schools have been the great offenders in this regard because their continuance depended on the fees received from students. However, I do not believe that all state schools are free from this unhealthy competition for student attendance. To quote Dr. Pritchett: 'Medical education in this country is in a low state, and this is due in a large measure to the rivalries of the various medical sects, each clamoring for a separate medical school and for special privileges in each state. New York has solved this question by refusing to recognize any sect standard. Just as soon as the same educational standard is required of all medical schools, it becomes a matter of small moment whether they call themselves allopaths, homeopaths, osteopaths, or adopt some other name from medical sectarianism. The Council on Medical Education of the American Medical Association has most wisely taken the position, that so long as a medical college will hold high standards, the Council will recognize it without regard to the particular name it chooses to take. And I venture to repeat the statement that true college standards do not mean necessarily the possible academic requirements as printed in the catalogue. They mean reasonable standards, honestly lived up to."

There is no question but that other elements than time should enter into the standardizing of preliminary and professional work in medicine. The difficulties of having no central authority, no general coordinating agent, excessive competition for students, and misleading outlines of courses in college catalogues, together with the distractions of athletics and social life—the public are only partially informed in respect to the pressing needs of medical training, and the relative merit of medical schools—all these are real and formidable obstacles to the desired progress It is pertinent to observe that each of these obstacles is also a primary reason for standardization in the terms of work as well as time.

Dr Warren B Hill, Milwaukee, Wis: The paper of Dr. Jackson is particularly timely because of the fact that in all the work we have been doing in the last decade toward elevating the standard of education in medicine and in bringing order out of chaos, we have failed to establish a criterion of accomplishment, and have emphasized rather the length of time that was necessary for the average student to reach this point, and the general equipment that was necessary instead of looking forward to and establishing a standard to which all people must conform And we would not have come to this question at all if it were not for the fact that there has been a conflict of interest between the university medical school and the university school of letters and science and the smaller colleges, in which the smaller colleges, the independent colleges, are demanding credit not only for scholastic training, but for time as well. Dr. McIntire has called attention to the fact that the student is entitled to credit for what he has done in the college of arts, and yet we are confronted by the fact that we have a state board which says, 'Thou shalt not or thou shalt," and I think it would be well for us to consider the state board as a unifying agent, because, after all our deliberations, we must come back to the fact that the state board is the unifying agent in this matter. But let us require of the state boards that they give better examinations. In examining senior students in medical colleges, we require two weeks, yet state medical examining boards do it in two days without having any knowledge of the students beforehand. Let us require that they take sufficient time to examine the product, and that they shall examine the students in a practical manner.

Dr. H. C Todd, Epworth University, Oklahoma City: I do not believe that the entrance requirements to a medical school should be based on graduation from any school. I believe they should be based on the amount of work done. We are thrown on the old time honored system of examination when it comes to the question of preliminary requirements of students for entrance to medical schools, and if we could decide on some method of examination we would solve a great deal of the difficulty that we are now meeting.

Dr. Arthur Dean Bevan, Chicago: The discussions to day show one thing very clearly, namely, that the university, in order to have a complete and well rounded course in every sense, needs a well equipped medical department; and I think every medical school, on the other hand, needs to become a part of a complete, well rounded university. The solution of this entire question of whether we are to have a six, a seven, or an eight-year course, seems to depend on the fact that eventually every medical school that will do good work and survive will become in this country, as in Germany, the medical department of some strong university.

Medicolegal

For What Physicians Called as Witnesses May and May *Not* Charge

The Kansas City Court of Appeals says, on the second appeal of Burnett vs. Freeman, that it held on the first appeal 'that a witness called to testify as an expert, whether as a physician, or in any other branch of knowledge, may be compelled to state his opinion, on hypothetical or other questions involving his professional knowledge, without compensation other than the witness fee taxed to the ordinary witness." And, further, the court held that public policy forbade him from increasing his fees for such services by contract with the party who called him But the court said that a professional man, summoned to testify as an expert, can not be required to specially prepare himself for that particular case, and may make such preparatory service the subject of a valid contract for compensation.

On the new trial awarded, the plaintiff, a practicing physician, endeavored to bring his cause of action within the scope of this rule. His testimony was: "I saw I was getting into something that I had not anticipated, where I would have to give extra services, and I made the statement that if I had to go to court on this matter that I would charge him $25 if I were put on the stand and not kept over an hour. If I were detained longer than that, I would charge $50 for my services" This, however, was nothing but an agreement for extra compensation for the service of attending court as a witness, and as such was void under the principles and rules applied in the first decision.

It was permissible for the plaintiff to contract with his patient that he should be paid for his services in making ex aminations of her injuries and in holding professional consultations with her and her husband, but it was not permissible for them to make the payment of such charges, or their amount, dependent on the contingency of the plaintiff being required to testify in the lawsuits The plaintiff's duty as a citizen compelled him to appear as a witness, and give testimony without other pay than fees allowed by law, and he should not be permitted to evade that duty by the palpable excuse of a contract for a contingent fee.

Dying Declarations Obtained in Abortion Case as Condition to Rendering Aid

The Court of Criminal Appeals of Texas says, on the appeal of Jackson vs State, that the Texas statute requires that a dying declaration, to be admissible in evidence, must be freely and voluntarily made. In this case it appeared that the girl on whom it was charged that a criminal abortion had been performed was suffering acutely, giving loud and vociferous exclamations of pain, and expressing the opinion that she was going to die. Under this condition of things, with her mind influenced in this way and by her pain, two physicians informed her that they would not do anything for her unless she told them about how her trouble came about and who performed the operation.

The testimony raised the issue that the dying declaration was not voluntary, but by overpersuasion, or duress, for that the evidence of the two physicians showed that they had declined to treat or relieve the declarant of what she thought was her dying condition, unless she gave the name of the party who had operated on her. This sufficiently presented the question, so as to require the court to submit the issue to the jury as to the condition of her mind at the time, and if they should find that she was under duress or overpersuasion, or not under a sense of impending death, then they should disregard her statement in arriving at a verdict.

In discussing parts of an instruction given to the jury, the court says that if the defendant appealing was guilty of a criminal abortion, there was no excuse for this, nor was there any justification; and certainly from no standpoint could there arise the question of "self defense."

Defect in Registration Law and a Failure of Physician to Comply Therewith Not Punishable

The Supreme Court of Wisconsin says, in Brown vs. State, that the effect of chapter 469 of the Laws of 1907, now designated as section 1022, subdivisions 1 to 59, inclusive, of the Statutes of Wisconsin, was to create a state bureau of vital statistics, with local registrars, etc. The only provision for registering physicians to be found in the act is subdivision 19 which requires the registering to be done on or before Oct 1, 1907, and contains no requirement whatever that a physician register thereafter, though by implication it may so permit By the last section the act did not go into effect until after Oct 1, 1907. There was therefore not until October 2 any "local registrar" in existence, and a compliance with the only command of the statute with reference to registration was impossible.

It is a most fundamental canon of criminal legislation that a law which takes away a man's property or liberty as a penalty for an offense must so clearly define the acts on which the penalty is denounced that no ordinary person can fail to understand his duty and the departure therefrom which the law attempts to make criminal One can not be said to willfully violate a statute which is so contradictory or blind that he must guess or conjecture what is his duty thereunder. Under the pre-existing laws the relations of the physicians were with different local officers, largely with the register of deeds; in some cases the city clerks. Must a physician at his peril guess that when the legislature ordered him to file with a certain state officer, and he found that impossible, they meant that he should file with the register of deeds? The solution of such conundrums can not be imposed on individuals at the risk of criminality if they make a mistake Because this statute made impossible compliance with the words of subdivision 19, and, while registration has been possible and permitted since, there is no word in the statute requiring it, the court holds that the defendant (Brown) was not shown to have willfully failed or neglected to register in breach of the command of the statute

Turning to the charge that the defendant willfully neglected to file such a certificate of birth as the statute commanded, the court is convinced that his conduct evinced no such state of mind as the word "willfully" in its legal meaning implies The voluntary effort to perform his duty by making certificate on the blanks which had been supplied him by the public officer, and the offer to comply with new regulations implied by his request that new blanks therefor be sent him, together with other circumstances, made plain that there was mere inadvertent omission of a required act in the sincere attempt to perform his duty as he understood it.

Wherefore, the court reverses a judgment of conviction in this case for failure to register and to file a certificate of birth, remanding the cause to the trial court with directions to dismiss the complaint.

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

Medical Record, New York

March 27

1 *Three Hundred Cases Treated with a Culture of Lactic Acid Bacteria C E North, New York
2 Direct Blood Transfusion—*Technic and Indications for Use* A A Berg, New York
3 *The Roentgen Ray and the Etiology of Cancer W H Dieffenbach New York
4 Two Unusual Cases of Influenza Pneumonia R Floyd, New York
5 Reduplication of the Tibia J. B Bissel, New York

1 **Lactic Acid Bacteria.**—North reports the results of himself and about forty other physicians who have been trying the effects of the use of lactic acid bacteria in various forms of bacterial disease This practice is based on the antagonism between lactic acid bacteria and some micro organisms of the putrefactive and pathogenic species The organism used was the *Bacillus bulgaricus*, cultivated in a medium of broth containing calcium carbonate He describes the preparation of the medium and the cultivation of the bacillus. If necessary, the diseased surfaces are first cleansed with warm saline solution, but antiseptics must not be used A syringe or spray is used, the broth culture being injected in its full strength The dose varies according to the extent of the inflammation The conditions in which it has been advantageously used are atrophic rhinitis, acute rhinitis (including coryza), ethmoiditis, disease of the antrum, chronic rhinitis, hay fever, cystitis, and certain surgical and dental conditions accompanied by suppuration The effects were temporary in tuberculous sinuses, and in cystitis and leucorrhea were not uniform In gonorrheal ophthalmia the results were good, as also in conjunctivitis, both pneumococcus and diplobacillary. North writes conservatively, but concludes that a few things have been learned by the work that may be more positively stated and seem to warrant a further study of the treatment These things are that:

> 1 The bacillus of Massol can be grown abundantly in dextrose bouillon by the addition of lumps of calcium carbonate
> 2 The use of these cultures as a wash or spray on inflamed surfaces or cavities often diminishes the discharge on such surfaces or cavities
> 3 The use of these cultures often diminishes odor caused by putrefaction
> 4 The treatment sometimes reduces swelling especially in the erectile tissues of the nose
> 5 Both acute and chronic inflammation caused by infections sometimes appear to be checked when their seat can be reached by an injection of these cultures
> 6 The use of the cultures seems to be accompanied by no special danger and they cause no irritation

3 **The Roentgen Ray and Cancer.**—Dieffenbach reviews the various theories as to the etiology of cancer and concludes:

> Neoplasms are due to interference with normal cell reproduction induced through trauma, pressure, severe inflammations, or constant irritations, these factors act on cell proliferation by producing abnormal cells, which, in turn if the original irritating status is maintained, again generate cells of their own kind

If trophic nerve impulses are not interfered with, normal conditions may supervene when the irritation or inflammation subsides.

If involvement of the trophic nerve takes place so that efferent and afferent impulses are interfered with or inhibited, riotous development of the new progeny of cells will be invited. If the trophic nerve supplying the part is severed or permanently inhibited, ulceration will supervene.

The above theory places the etiology of cancer formation on a rational basis, and permits us to guard against its increase by prophylactic measures which readily suggest themselves.

Boston Medical and Surgical Journal

March 25

6 *Surgery of the Bile Passages with Special Reference to the End Results. J. C. Munro, Boston.
7 *The Trend of the Clinician's Concept of Hysteria. T. A. Williams, Washington, D. C.
8 The Calcaneofibular Ligament and its Neighborhood, Based on Dissections. E. A. Tracy, Boston.
9 Pseudohermaphroditism. W. L. Harris, Providence, R. I.
10 Hand Sterilization (concluded). C. G. Cumston, Boston.

6. Surgery of the Bile Passages.—Munro discusses the end results in 198 out of 300 operations and arrives at the following conclusions:

1. An analysis of the cases demonstrates that jaundice is present in a majority of all, even the simple gall bladder cases, at some time, and that in a large majority of common duct cases there is jaundice.
2 The pancreas is not infrequently pathologic, as determined by examination of the open abdomen.
3 Adhesions are present in a large majority of cases, and may be the direct cause of symptoms rendering all medical treatment more than futile.
4 Pulmonary complications must be reckoned with in prognosis, but they are less frequent than anticipated.
5 Cholecystostomy is normally a more suitable operation than cholecystectomy, unless the gall bladder is definitely functionless.
6 Recurrence of symptoms may be due to adhesions or a contracted gall bladder as well as to overlooked stones.
7 Toxemic cases are best treated medically until the acute state is passed.
8 Fatal capillary hemorrhage may be controlled to an extent not yet determined by the use of fresh animal serum.

7. Hysteria.—Williams considers that the disappearance of many of the supposed stigmata of hysteria is proof of their artificial nature. For ten years, neither Babinski nor Bernheim has seen a case of hysterical anesthesia except in patients whose sensibility has been previously medically examined. It is possible to create at will sensory stigmata contracture, motor palsy, etc., and doubtless in the past the stigmata were produced by unconscious suggestion. The hysterogenetic zones also can be determined and changed at the suggestion of the operator. Hysteria is called the great simulator, and hysterical patients are often believed to simulate deliberately and consciously, but the so called hysterical simulation is only a variety of the perversity of imagination, termed mythomania, the main element of which is the love of playing a part and belief in that part; yet all hysteria must not be confounded with mythomania, or *vice versa.* These cases are allied psychologically to the self accusers and self mutilators. The fact that symptoms of hysteriform appearance may be engendered by emotional shock or moral commotion is not pathognomonic, for these causes may produce apoplexy in diabetics or subjects of Bright's disease, and tachycardia in Graves' disease or other cardiac susceptibility. Their rapid disappearance is not special, for tabetic gastric crises and hepatic or nephritic colics often stop abruptly. Variability is not a base for definite diagnosis, for syphilis, tuberculosis, gout, etc., are most variable. Neither is absence of organic change, for no such change is apparent in certain types of insanity and in psychasthenia. Suggestibility varies not only from individual to individual, but from time to time in the same individual, especially under fatigue, want of sleep, slight disorders of digestion, alimentary and chemical intoxications, those due to the slighter infections, and the climacteric. The subjective symptoms of the neurasthenic state may be acquired by suggestion, and many cases of so called neurasthenia are purely imaginary. That the reflexes can not be influenced by suggestion is true, but few neurologists still believe them modifiable by hysteria. As to amnesia, which Janet lays stress on as distinguishing hysterical from psychasthenic crises, it must be remembered that conception comes before memory, and the nature of the perceptions forgotten must be taken into consideration. Incidentally, Sidis has shown that the alleged fallacious sense perceptions of hysterical patients do not depend on faulty observations, but are derived from a desire to conform to the supposed intention of the observer. All individuals convey thoughts, often quite unconsciously by gestures, facial expressions, tricks of speech, and tones of voice. These pass unnoticed by observers whose minds are taken up with what appeals to the constructive intelligence, but to those incapable of complicated mental synthesis, the intellectual elements appeal less than these minor sources of expression. Suggestibility depends on such a lack of synthetic and critical quality of mind, and the hysterical person, too indolent to make an effort at synthesis and too abulic to inhibit an impression once formed, perceiving the externals only of intercourse and feeling, rather than formulating, acts on the sense of knowledge thus engendered from data not even in the cognizance of others. The fixed ideas of hysterical individuals are often produced thus, and the same applies to amnesia. The patient easily persuades himself that he remembers only what he believes he is desired to remember.

New York Medical Journal

March 27

11 External Roentgen Treatment of Internal Structures (Eventration Treatment). C. Beck, New York.
12 Intracranial Causes and Operative Treatment of Trigeminal Neuralgia. J. B. Deaver, Philadelphia.
13 *Painful Heels. I. D. Steinhardt, New York.
14 Double Dilator for Use in Obstetrics and Gynecology. J. J. Rectenwald, Pittsburg.
15 The Medical Mind. R. L. Pittfield, Philadelphia.
16 Metabolism of Certain Skin Disorders (concluded). J. C. Johnston and H. J. Schwartz, New York.
17 *Eucalyptus in Leprosy. H. T. Hollmann, Kalaupapa, Molokai, H. T.
18 Symbiotic Action of the Epithelial Cells of the Skin on the Cells of the Epithelium of the Kidneys. B. R. LeRoy, Athens, O.

13. Painful Heel.—Steinhardt writes of a type of severe pain and tenderness in the heel which refuses to yield to ordinary treatment. An acute inflammation of the os calcis is a common cause, and there is frequently a history of gonorrhea, gouty rheumatism, or trauma. Steinhardt has seen over 30 cases in the past two years. He quotes the pathologic report on a gonorrheal case in which brittle exostosis was found, showing a granulation tissue. The process was an ossifying periostitis and gonococci were found. In other cases different cocci have been found. Complaint is first made of general pain in the toes and foot, which, after a time, becomes localized in the heel, with tenderness, especially near the tubercle of the os calcis. An *x*-ray picture will show spicules of bone protruding from the os calcis, with a surrounding periostitis. The condition is curable by proper treatment—removal of the offending exostosis with postoperative treatment of the underlying cause. The technic of the operative part of the treatment is as follows:

1 Apply Esmarch bandage.
2 Usual cleansing of entire foot for operative procedure.
3 Apply tincture of iodin to line of incision.
4 Make an incision about two or two and one half inches long terminating at a point about one half inch behind the tubercle of the os calcis. This incision should be right down to the bone and in the middle line.
5 Insert retractors and locate exostosis at bottom of wound.
6 Chisel away exostosis with a grooved chisel and scrape the bone with a sharp spoon until the surface is smooth and seems healthy.
7 Wash out with sterile normal salt solution.
8 Close wound without drainage, with interrupted catgut sutures.

The patient should rest in bed for about three days, and then, if everything is going smoothly, may be allowed to sit up. At the end of two weeks, the feet may be put to the ground, and after twenty one days, the patient should be around as usual, continuing, if still necessary, the postoperative treatment.

17. Leprosy.—Hollmann, in a second publication, confirms in the main his former statements as to the marked ameliorations in the clinical manifestations of leprosy effected at the leper settlement, Molokai, by the use of eucalyptus in medicated baths and taken internally. Eucalyptus has been used at the leper settlement for two years, and Hollmann states that the following effects have been noted: The skin glands are stimulated and the skin becomes softer and more pliable; the leonine facies is less marked: there is marked improvement in leprous neuritic pains; itch is cured; excoriations, ulcerations, erosions, and abrasions of the skin and mucous membranes are healed; swollen head fever has largely disappeared, and leprous fever is decidedly decreased. He modifies his previous statement that this treatment would overcome partially contracted fingers; it has not permanently done so. Stiffness is relieved only when treatment is continued regularly. He can not substantiate his previous assertion that this treatment will cause leprous tubercles to disappear. In the two years, 275 patients have taken the treatment, with the result that the death rate of the leper settlement has been less than 5 per cent., of which less than 2 per cent. was due to leprosy. Every one of the 275 patients who have been helped has had the disease from 5 to 20 years. It is believed that patients in the incipient stage of the disease might possibly be cured.

Lancet-Clinic, Cincinnati

March 27

19 Neuroses and Psychoses of Women. C. D. Palmer, Cincinnati.
20 *Systemic Effects of Chronic Infections of the Throat and Nose. F. G. Stubbs, Chicago.
21 Progressive Pernicious Anemia. J. A. Witherspoon, Nashville, Tenn.

20. Abstracted in The Journal, Nov. 21, 1908, p. 1806.

Medical Fortnightly, St. Louis

March 25

22 Self-Limited Diseases. J. R. Buchanan, Nevada, Mo.
23 *Atonia Gastrica, its Significance and its Therapy.* A. Rose, New York.
24 Then and Now. *W. F. Waugh, Chicago.*

Virginia Medical Semi-Monthly, Richmond

March 12

25 Treatment of Hip Disease. H. Gibney, New York.
26 Neurasthenia. J. N. Upshur, Richmond.
27 Pulmonary Tuberculosis, 2,133 Cases Treated in the Asheville *Climate from 1897 to January, 1907.* J. A. Burroughs, Asheville, N. C.
28 Hydrotherapy. J. C. Walton, Richmond, Va.
29 Treatment of Whooping Cough—With a Plea for a Better Experience with Antitoxin. S. Harnsberger, Catlett, Va.
30 Gall-Bladder Operations. E. M. Magruder, Charlottesville, Va.
31 Hemlock and Cancer. W. Waugh, Chicago.

March 26

32 Mechanism of the Secretion of the Pancreatic Juice and the Question of Hormones. T. Hough, Charlottesville, Va.
33 Interdependence of Physicians and Surgeons. J. A. Hodges, Richmond.
34 Operative Treatment of Hyperthyroidism. C. H. Mayo, Rochester, Minn.
35 Antitoxin or Serotherapy in Treatment of Whooping Cough, Measles and Scarlet Fever. S. Harnsberger, Catlett, Va.
36 Importance of Early Diagnosis of Tumors. J. S. Horsley, Richmond.
37 Surgery of the Bile Tract. J. E. Cannaday, Charleston, W. Va.
38 Cancer of the Liver. O. F. Blankenship, Richmond, Va.
39 [illegible] Joint Under Local Anesthesia. C. S. [illegible] D. C.
40 [illegible] Cancer. J. T. Clarke, Mount Solen, Va.

American Journal of Surgery, New York

March

41 *Intestinal Resection; Preliminary Report of a Simplified Method. H. Lilienthal, New York.
42 [illegible] Perisigmoiditis. J. P. Tuttle, New York.
43 *[illegible] of the Uterus—A New Technic. J. Van D. [illegible] York.
44 *Cancer of the Breast. W. Meyer, New York.
45 Surgery of Foreign Bodies, Especially Those Occurring in the Skeletal Tissues, Including Description of a Localizing Method. W. M. Brickner, New York.
46 *Operation of Direct Blood Transfusion—Description of a Simple Method. J. A. Hartwell, New York.
47 *Avoidance of Hemolysis in Transfusion. M. Rehling and R. Weil, New York.
48 *Uterine Fibrosis and its Surgical Treatment by a New Method of Vaginal Hysterectomy. S. W. Bandler, New York.
49 Dislocations of Cervical Vertebræ. J. P. Warbasse, Brooklyn.
50 A Plastic Mastoid Operation: *New Operation for Acute Mastoiditis.* F. T. Hopkins, New York.
51 *A Modified Operation for Inguinal Hernia. A. E. Sellenings, New York.
52 Surgery of the *Pericardium* and Heart. H. B. Delatour, Brooklyn.

41. **Intestinal Resection.**—Lilienthal has been so satisfied with the results of the treatment of the stump in appendicectomy by simple ligation and carbolic acid cauterization of the mucosa, that he has applied the same method to the stumps in intestinal resection of various forms. In this preliminary communication he reports briefly six cases. He gives the warning to tie the ligature tight enough to crush the mucosa and to sterilize the stump with pure carbolic acid not followed by alcohol.

43. **Suspension of the Uterus.**—Young describes a method of suspending the retroverted uterus by the uterosacral ligament, for which he claims the following advantages: The supporting of the uterus in its normal position from the bony structure above; the body and especially the fundus are freely movable for all the functions of the body. This procedure does not distort but reproduces the curve of Carus. There are no artificial bands through which *intra-abdominal hernia* may occur. In the event of pregnancy there is no possibility of dystocia. It relieves the patient anatomically and symptomatically.

44. **Cancer of the Breast.**—Meyer says that while we know that the disease may be cured if treated early and radically, we have also learned that we can guarantee such a fortunate issue in no single instance. Early operation depends on early diagnosis. He discusses the early diagnosis of cancer of the breast with reference to scirrhus, adenocarcinoma, diffuse *interstitial fibroma*, and suppurative mastitis. In adenocar*cinoma there is no apparent effect* on the nipple. It is hardly possible to confound scirrhus with diffuse interstitial fibroma, which belongs to the borderland cases but needs prompt radical operation. Chronic suppurative mastitis usually develops three or four years after nursing, is diffuse, and yields pus on aspiration. Simple incision usually effects a cure. Meyer next describes the change made by him in his original technic for the removal of the breast. He makes the axillary part of the skin incision pass about two fingers' breadths above the lower border of the pectoralis major. This permits of a more effective shifting of the lower flap at the *completion of the operation, covering a greater part of the* resulting defect. He forms one large upper and one large lower flap, circumcising the base of the breast without regard for the skin, the defect being later grafted. He believes this technic can not be improved on, unless the future should show it advisable to resect the clavicle, to follow up the entire chain of glands into the supraclavicular space, extirpating them with the surrounding fat in one mass. The removal of the supraclavicular glands in all cases is still a moot point, but a recent experience which Meyer describes inclines him toward it. He is pleased with the use of Bier's suction cup as an adjuvant in the after-treatment of operating fields that can not be cleared of disease, even macroscopically. He insists strongly on extirpation of any accessory mammary glands, and the entire breast with them, and refers to two experiences that illustrate and emphasize this point. He quotes statistics of 80 patients treated by means of this radical operation. Of 16 operated on from 10 to 12½ years ago, 3 (18.7 per cent.) are alive and well 11 and 12½ years after operation. Of 27 patients operated on from 5 to 10 years ago, 6 (22.2 per cent.) were alive and well in May, 1907. Of 43 patients operated on between September, 1894, and April, 1902, 17 (39.5 per cent.) remain free from recurrence from 3 to 12½ years, and 13 (30 per cent.) from 5 to 12½ years. Of 20 patients operated on from 3 to 5 years ago, 10 or (50 per cent.) were alive and well 20 months ago. Of 63 cases operated on more than 3 years prior to May, 1907, 28 (44.4 per cent.) lived from 3 to 12½ years after operation. Of Meyer's 80 patients 40, or 50 per cent., died within 3 years, 24 of these within 1½ years. No selection was made, and he has never refused the operation. With regard to borderland tumors, he is convinced that the only safe plan is to operate on every patient over 25 or 30 years of age, and not to wait for unmistakable signs of malignancy. End-results can only be improved by early radical operation based on early diagnosis; by educating the public to understand that the most painlessly developing tumor is the most dangerous one; by operating on circumscribed apparently benign tumors, which may develop malignancy; and by finding the cause of carcinoma.

46. Abstracted in The Journal, Jan. 30, 1909, p. 411.

47. **Avoidance of Hemolysis in Transfusion.**—Rehling and Weil describe experimental investigations which lead them to conclude that test tube reactions, in spite of the differences in conditions, appear to afford a reliable criterion of the re-

sults of the intended transfusion. This fact has been verified experimentally on dogs, and once on a human patient. It seems advisable, therefore, that every transfusion should be preceded by such tests.

48 **Uterine Fibrosis.**—Bandler describes this condition and says that the remedy which absolutely prevents the various combinations of symptoms is vaginal hysterectomy without removal of the ovaries. In this way unbearable hemorrhage is prevented; and the regular or irregular recurrence of the condition known as constitutional dysmenorrhea is at an end. He describes with numerous illustrations a method of simple vaginal hysterectomy which he has practiced in 110 cases without a fatality. The operation when done in a leisurely manner rarely takes more than 40 minutes, and the patient suffers scarcely any postoperative annoyance

51. **Inguinal Hernia.**—Sellenings describes, with illustrations, a simplified operative technic, for which he claims the following advantages: (1) Rapidity of performance; (2) diminished period of narcosis; (3) no dissection of sac, and tissue bruising therefore eliminated; (4) preservation of nerve distribution; (5) absence of the sometimes troublesome venous hemorrhage; (6) no manipulation of the cord, its vessels or the testicle.

Annals of Surgery, Philadelphia

March

53 *Intra Abdominal Administration of Oxygen W. S Bainbridge, New York
54 *Plastic Surgery of Blood Vessels and Direct Transfusion of Blood I Levin, New York
55 *Nerve Involvement in the Ischemic Paralysis and Contracture of Volkmann J J Thomas, Boston
56 *Operating on the Cranial Vault H C Masland, Philadelphia
57 Surgical Treatment of Internal Hydrocephalus R S Fowler, Brooklyn
58 Operations Involving Free Opening of the Thorax. A. E Rockey, Portland, Ore
59 Value of the Leucocyte and Differential Counts in Appendicitis G N Pease, New York
60 Typhoid With Multiple Perforations, Repeated Operations Followed by Ultimate Recovery A. J Roberts, Bridgeport, Conn
61 Angiorrhaphy F B Lund, Boston, Mass
62 Perforating Wound of the Knee Joint G Torrance, Birmingham, Ala
63 Apparatus for the Introduction of Salines into the Rectum G J Saxon, Philadelphia
64 *The Sitting Posture, Its Postoperative and Other Uses. W. D. Gatch, Baltimore
65 *Method of Splinting Skin Grafts J. S Davis, Baltimore.

53. **Intra-Abdominal Administration of Oxygen.**—Bainbridge after referring to a previous communication in the *New York State Journal of Medicine*, June, 1908, reports the results of continued tests of the utility of intra abdominal administration of oxygen wherever indicated. It is now administered for the following purposes:

1 To lessen shock, hemorrhage, nausea, and vomiting
2 To overcome negative intra abdominal pressure after removal of large tumors
3 To prevent the formation of adhesions
4 For its effect on tuberculous peritonitis of certain types
5 For its effect on pus producing organisms and their toxins

He details the method of administration and reports a supplementary series of cases illustrating its application. Bainbridge cautions as to the necessity of watching for failing strength after all the gas is absorbed and the administration has ceased. He gives the following tentative conclusions: 1. From Cases I to XVI, reported in his former paper and from Cases XVII to XXX, detailed here, it may be safely said that oxygen, intra abdominally administered, has a distinct field of usefulness in lessening shock, hemorrhage, nausea and vomiting; in overcoming negative intra abdominal pressure after removal of large tumors; in preventing the formation of adhesions, or, when broken up, lessening the liability of their return; and in influencing favorably certain types of tuberculous peritonitis. From Cases I to II (his own), and Cases III (Dr. Greene's), in which the gas was introduced into the peritoneal cavity in septic peritonitis, sufficient beneficial effect was noted to warrant the hope that further clinical experience may establish the efficacy of the gas as an adjuvant in the treatment of this condition.

54 Abstracted in The Journal, Jan 30, 1909, p 412.

55. **Ischemic Paralysis.**—Thomas, finding this condition apparently frequent, is surprised at the paucity of reported cases. He does not think that tight bandaging or neglect is the only cause. He reports four cases which he has seen and reviews in tabular form the 107 cases which he finds reported in the literature. The study of the cases of ischemic paralysis and contracture reported in the literature shows very clearly that this condition varies greatly in severity in different instances, and that in many of the cases we are dealing with complications of the primary trouble from secondary involvement of some of the nerve trunks of the arm, which produce disturbances that can not be relieved by the treatment of the contractures only. The individual patient must be carefully examined, therefore, with the question of nerve involvement in mind, and this condition should be considered in determining the treatment. He discusses the pathology and treatment.

56. Abstracted in The Journal, Jan. 23, 1909, page 321.

64. **The Sitting Posture After Operation.**—Gatch describes a bed in use in Johns Hopkins Hospital which can be made by any carpenter at small expense. The advantages of the bed are that it is simple, that it permits the patient to lie flat or to sit at any angle of elevation desired; that it holds a patient in the sitting posture all the time and without any effort on his part; that it permits of continuous irrigation of the bladder, rectum, or adjacent parts without wetting the bed or the patient; and finally, that it readily adapts itself to the comfort of a large class of patients who need to sit up more or less of the time. The therapeutic uses of the sitting posture are: (a) Operative (1) to drain the peritoneal cavity; (2) to lessen the danger of lung complications; (3) to permit continuous irrigations; (4) to promote comfort and general well being (b) Non operative, in numerous cases of pulmonary and cardiac disease, incontinence of urine or feces, paralysis, etc.

65 **Skin Grafts.**—Davis uses a coarse meshed net, such as is used for curtains, for keeping skingrafts in position. The stiffening is washed out and the net is soaked in gutta percha 30 parts, chloroform 150 parts. It is sterilized by keeping in 1 to 1,000 solution of bichlorid of mercury. Of course no hot material must come in contact with it at any time. After placing the skingrafts, a piece of this web rather larger than the grafted area is pressed snugly down on it. Its advantages are that it splints the grafts without too much pressure, and is easy to apply and secure in place. It does not adhere to the grafts or to granulations. It allows the free escape of any secretions which may form, and thus prevents maceration. Any sort of dressing may be placed over it The progress of the healing may be observed at any time without danger of displacing the grafts.

American Journal of Physiology, Boston

March

66 *The Action of the Alkaloids of the Papaveraceæ on the Isolated Frog's Heart W Hale, Ann Arbor, Mich
67 Action of the Alkaloids of the Papaveraceæ on the Motor Nerve Endings W Hale, Ann Arbor, Mich
68 *Metabolism in Man With Greatly Diminished Lung Area. T M Carpenter and F G Benedict, Boston, Mass
69 *Comparative Study of the Digestibility of Different Proteins in Pepsin Acid Solutions W N Berg, New York
70 Chemical Studies on the Effects of Centrifugal Force on the Eggs of the Sea Urchin *(Arbacia Punctulata)*. J F. McClendon, Woods Hole, Mass

66. **Action of Alkaloids of the Papaveraceæ.**—The general result of Hale's work is that these alkaloids stimulate the heart in weak solutions and depress it in strong ones In the case of cryptopin and sanguinarin there is no increase in the efficiency of the heart, although the rate is augmented by small amounts of these drugs. Thebain does not seem to be stimulant in any dilution. Heroin is more deleterious to the frog's heart than is codein or morphin. All the members of the series act as depressants of the motor nerve endings and it is shown that morphin and codein are clearly less toxic to the motor nerve endings than heroin, and that the latter in turn is less toxic than a number of the other members of the series studied.

68. **Metabolism in Man.**—Carpenter and Benedict experimented on a man whose respiratory area had been reduced

one-half by the total obliteration of one lung. Their conclusion from their work is that the reduction of the area for oxygen absorption and carbonic acid elimination in the lungs by about one-half has not materially altered the total metabolism.

69. **Comparative Study of Digestibility.**—Berg sums up the results of his experiments as follows:

1. Measured under uniform, or nearly uniform, digestive conditions, different proteins digest with unequal speed. The eleven proteins used in these digestion experiments divide themselves, with regard to their digestibility, into two groups, the first group consisting of 6 simple proteins, which were rapidly digested in pepsin acid solutions containing 10 mgm. of pepsin in 100 c.c. of solution; the second group consisting of 5 conjugate proteins, which were slowly digested in acid solutions containing from 50 to 500 mgm. of pepsin in 100 c.c. of solution. The order of digestibility, beginning with the protein which was most rapidly digested, is as follows: Edestin, myosin, alkali albuminate, acid albuminate, fibrin, coagulated egg albumin, ossein, nucleoprotein, tendo-collagen, elastin, tendo-mucoid.

2. The relative digestibility of an untried protein may be predicted only with uncertainty. That its digestive behavior will be similar to that of some other protein of similar chemical or physical constitution can not be assumed with safety. The question must be decided experimentally.

3. The relative digestive efficiency of the acid solutions used in these experiments was fairly uniform. For the first group of proteins the average order, beginning with the solution in which digestion was most rapid, is the following: Hydrochloric, nitric, oxalic, phosphoric, sulphuric, tartaric, lactic, citric, acetic, boric. For the second group of proteins (ossein excepted) the average order is the following: Hydrochloric, nitric, oxalic, sulphuric, phosphoric, tartaric, citric, lactic, acetic, boric.

4. In general, the greater the concentration of hydrogen ions in the digestive solutions used, other conditions being equal, the more rapid the digestion. While there was no exact proportionality, there was a general parallelism.

Journal of the Medical Society of New Jersey, Orange

March

71 *Development of the Navy Medical Corps to Meet the Modern Requirements of Specialization in Medical Practice. P. M. Rixey, U. S. Navy.
72 Salpingitis. J. W. Martindale, Camden.
73 Diagnosis and Treatment of Sarcomata. J. Tomlinson, Bridgeton.
74 Can the Nation be Perpetuated? Necessity for a National Bureau or Department of Health. D. Benjamin, Camden.
75 The Medical Profession and the Societies. D. E. English, Millburn.
76 What is Medicine? An Abstraction. G. K. Dickinson, Jersey City.

71. **The Navy Medical Corps.**—Rixey says that the medical corps of the Navy should be the equal of any organized body of medical military men in the world. The naval service, by virtue of its world-wide intercourse, is essentially aristocratic, requiring the instinct, discernment and conduct of a gentleman in its officers. The medical officer being on a plane of equality with the others, personal qualifications must enter into the determination of general suitability. The wide range in the character of the *clientèle* and responsibilities calls for professional ability and ready adaptability. The charge of financial interest demands strict integrity and capacity for handling an intricate and complex organization. The service presents fine opportunities for original work and initiative. Rixey discuses the place of tropical diseases in naval medical experience, the difference between naval surgery and military surgery, naval hygiene, the naval medical school, and the conditions of life and practice on a battleship. He urges that the service to-day affords as much in the way of pay, opportunities for the future, and satisfactory professional work for young men as any other public service.

Military Surgeon, Richmond, Va.

March

77 The Fleet Surgeon, His Position, Duties, Responsibilities and Training in Relation to the Fleet and its Sanitary Necessities. A Study in Organization. H. G. Beyer, U. S. Navy.
78 The Disposal of All Liquid Refuse of the Otis Excavators and of the Sanitary Carts, in a Maneuver Camp, by Evaporation on Heated Rocks. H. I. Raymond, U. S. Army.
79 Hypodermic Anesthesia (historical). W. T. Thackeray, Chicago.
80 The Mexican Wheeled Stretcher for the Transport of Wounded on the Battlefield. A. Ross, Mexican Army.
81 Militia Service Schools, With Particular Reference to the Medical Department. G. M. Muren, U. S. Army.

Illinois Medical Journal, Springfield

March

82 *Phagocytic Immunity and the Therapeutic Injection of Dead Bacteria in Endocarditis. Preliminary Report. E. C. Rosenow, Chicago.
83 *Hyperchlorhydria and its Treatment, Based on Animal Experiments. M. M. Portis, Chicago.
84 Throat Disea [illegible] 'thy, Dubuque, Ia.
85 Differential [illegible] ımonia and Cerebrospinal [illegible] in Their Early Stages. [illegible]
86 When Should an Operation be Performed for Strabismus (Squint or Cross-Eyes) in Children and in Adults? A. L. Derdiger, Chicago.
87 *Eye Defects in Backward Children. M. Frank, Chicago.
88 *Postoperative Nasal Hemorrhage. E. Pynchon, Chicago.
89 *New Method for Packing the Nostril. W. E. Casselberry, Chicago.
90 Report of the International Congress on Tuberculosis. A. E Smith, Freeport.
91 Influenza and its Complications. J. W. Dunn, Cairo.

82. **Phagocytic Immunity.**—Rosenow refers, in a preliminary report, to investigations undertaken to answer the following questions: How do the micro-organisms in endocarditis of this mild type protect themselves in the blood and endocardium, and ultimately cause death, when they seem to be *without virulence, while those in pneumonia with their high* grade of virulence are usually destroyed and recovery is the rule? The object of this study was primarily to explain, if possible, the mechanism involved in these and other allied questions and to determine the effect of the therapeutic injection of dead bacteria in endocarditis. A full report of the experiments will appear later. His conclusions are as follows:

1. The blood culture in endocarditis is the best means of making an early diagnosis. It should always be made for the identification and study of the infecting organism, as well as for prognostic reasons. Barring accidents, the greater the virulence the more grave the *prognosis.*

2. The therapeutic injection of dead bacteria in endocarditis has *very little influence on the disease until late in its course,* when there is a temporary improvement following the injections.

3. A very close relation exists between the biologic character of these organisms and their ability to produce endocarditis in the class of cases observed.

4. The organisms isolated, while of practically no virulence to animals and susceptible to phagocytosis on cultivation, appear to immunize themselves against the antibodies produced by the host, and thus to overcome the resistance of the latter.

83. *Abstracted in* The Journal, *June 13, 1908, p. 2016.*

87. **Eye Defects in Backward Children.**—Frank's experience leads him to conclude that:

1. Refractive errors are unusually frequent among backward children.

2. The correction of these defects by the fitting of proper glasses is followed by remarkable improvement of the mental power and allows the apparently backward child to keep up with its mates.

3. It would be decidedly good policy to have the eyes of all children with real or apparent mental deficiency thoroughly examined as a matter of routine.

88. This article is also published in the *Lancet Clinic*, March, 6, 1909, *Chicago Medical Recorder*, March, and the *Journal of Ophthalmology and Oto-Laryngology*, March.

89. **Packing the Nostril.**—Casselberry, while recognizing the superior efficacy of the posterior plug over an anterior pack in postoperative nasal hemorrhage, takes note of the painfulness and even dangers attendant on it and its removal. He has devised a tampon composed of a rubber finger cot, or preferably of what might be called a club finger cot, which, after insertion into the nostril, is filled by means of a tubular packer with a strip of sterile gauze, 1¼ inches wide and a yard or more in length. He describes the apparatus and the method of its use.

Albany Medical Annals

March

92 The Crime, the Criminal, and the Police. C. G. Cumston, Boston.
93 Successful Demonstration of the Problem of Obtaining Sterile Cow's Milk. J. T. Howell, Newburgh, N. Y.
94 Ether Gas Anesthesia. C. R. Marsh, Oneonta, N. Y.

Kentucky Medical Journal, Bowling Green

March

95 Medical Defense. E. W. Hines, Bowling Green.
96 Idem. J. J. Moren, Louisville.
97 *Introduction of Tubes, Bougies and Metal Instruments into the Lower Bowel, with Radiographic Illustrations. G. S. Hanes, Louisville.
98 Apparatus and Technic Used in Making Radiographs. E. T. Bruce, Louisville.
99 Placenta Prævia, With Report of Two Cases of Placenta Prævia Centralis. E. Speidel, Louisville.
100 The Public Health. U. L. Taylor, Columbia.
101 Nasal Sinuses. S. J. Smock, Springfield.
102 Triumphs in Medicine. E Morris, Sulphur.
103 Scarlet Fever. W. Blair, Glen's Fork.
104 Nitrous-Oxid Anesthesia—Report of Cases. J. W. Helm, Louisville.
105 Some Differences Between the American and English Physician. G. B. Wagner, Newport.

106 Uremia. D. O. Hancock, Henderson.
107 Stricture of the Esophagus. C. G. Lucas, Louisville.
108 Goiter. P. F. Eve, Nashville.
109 Etiology, Symptoms and Diagnosis of Acute Mastoiditis. W. G. White, Louisville.
110 Mastoiditis—Its Non-Operative and Prophylactic Treatment. G. A. Robertson, Louisville.
111 Operative Treatment of Acute Mastoiditis. I. A. Lederman, Louisville.

97. **Introduction of Rectal Tubes.**—Hanes gives the result of his observations on the behavior of rectal tubes and bougies when introduced into the lower bowel, in the hope of throwing light on the question of the passage of tubes high up into the bowel. His conclusions are as follows:

1. Soft rubber tubes and bougies rarely, if ever, enter the descending colon, unless they are carried well into the sigmoid through a sigmoidoscope.
2. Tubes of medium flexibility can be introduced further into the bowel than those that are very soft or rigid.
3. Long soft rubber tubes when forced into the bowel coil on themselves, press on the gut wall and stimulate peristalsis and straining, all of which serves to prevent the successful administration of enemata.
4. Enemata should be given with the hips elevated, and the water or solution allowed to pass in very slowly, and through a tube introduced into the bowel not more than three or four inches.
5. I have carefully measured the capacity of the rectum and found it to be much less than ordinarily supposed. The rectum in a boy thirteen years of age had a capacity of eight ounces. The rectum in a man five feet ten and a half inches in height had a capacity of only fourteen ounces.
6. I feel confident that, when as much as one quart of water is injected into the rectum, a portion of it passes to the upper limits of the sigmoid and doubtless into the descending colon.
7. There is scarcely any doubt that the liquid passes along the entire large gut into the cecum when large enemas are administered.
8. There is no reason why water can not be forced to the cecum. If the sphincter muscles remain contracted it can take no other course. Everyone knows how patients complain when solutions are rapidly thrown into the bowel, and, if a little time is given, how quickly the desire to evacuate the bowels is relieved. The interpretation is that the rapid distention causes the desire to evacuate, and as the water passes up into the gut the pressure is relieved.
9. The entire large gut, including sigmoid and rectum, is much shorter *in situ* than we have previously been led to believe.
10. My experience in the use of bismuth subnitrate does not correspond, by any means, with recent reports of others who have used it. At three or four different times from a half to one pound was injected without untoward results. Others have reported symptoms of poisoning when only two or three drams were injected.
11. My observations lead me to believe that there is no such motion in the rectum as reversed peristalsis.

Journal of Ophthalmology and Oto-Laryngology, Chicago

March

112 Symblepharon and False Pterygium From Fireworks Burn; Successful Operation. C. W. Hawley and J. F. Campbell, Chicago.
113 Foreign Body in the Orbit of Long Standing. Report of a Case. J. V. Clothier, Philadelphia.
114 Demonstration of Foreign Body in the Esophagus Removed by Esophagoscopy. H. Stolte, Milwaukee.
115 *Postoperative Nasal Hemorrhage. E. Pynchon, Chicago.

115. See reference No. 88.

Wisconsin Medical Journal, Milwaukee

February

116 *Mobilization of the Duodenum for the Removal of Stones From the Common Duct. R. Elmergreen, Milwaukee.
117 Anatomy, Pathology and Operative Technic in Gall Bladder Surgery. H. A. Sifton and C. A. Evans, Milwaukee.
118 *Administration of Oxygen for Postanesthetic Nausea and Vomiting. R. P. Peairs, Milwaukee.

116. **Mobilization of the Duodenum.**—Elmergreen summarizes his article as follows:

1. The removal of a stone from the retroduodenal or transduodenal portions of the common duct, under unfavorable circumstances, remains a difficult and hazardous feat in surgery.
2. The mobilization of the duodenum to gain access to the common duct is a recognized procedure of incomparable value.
3. Thorough digital exploration of the deep biliary passages and good drainage are the secrets of success in common duct surgery.
4. The day of irremediable obstruction of the common duct has passed.

118. Abstracted in THE JOURNAL, Aug. 8, 1908, p. 524.

American Journal of Urology, New York

March

119 *Problems Relating to Prostatectomy. L. B. Bangs, New York.
120 Hematuria and its Treatment. J. W. Koehn, Chicago.
121 Serodiagnosis of Syphilis (concluded). G. A. DeS. Saxe, New York.
122 Neisser-Bacterin (Gonococcus Vaccine) in Gonorrheal Arthritis. W. J. Robinson, New York.
123 Removal of Large Renal Calculus: Recovery. H. B. Angus.

119. Abstracted in Society Proceedings in THE JOURNAL, Feb. 20, 1909, p. 657, and published in *The New York State Journal of Medicine*, March, 1909.

Journal of the New Mexico Medical Society, Albuquerque

March

124 Diet and Rest in Pulmonary Tuberculosis. S. G. Sewell, Albuquerque, N. M.
125 Postoperative Treatment of Abdominal Section. J. Vance, El Paso, Tex.
126 *Sequelæ of Appendiceal and Puerperal Infections, With Notes on Appendicitis in Children. W. H. Burr, Gallup, N. M.
127 The Eosinophile and Opsonic Index. S. D. Swope, Deming, N. M.

126. **Appendicular and Puerperal Infection.**—Burr says that many puzzling cases occur in which patients develop sequelæ that, in the absence of careful postmortem and microscopic examination, can not be explained as belonging to the ordinary classical sequelæ of fatal appendicitis. He has no doubt that if every fatal case of appendicitis treated with or without operation were carefully examined by scalpel and microscope, it would be found that, even in patients operated on who succumbed, the operation contributed little or nothing to the fatality, which was the result of an infection already beyond surgical aid. The lesson to be learned is that there is no such thing as benign appendicitis.

Northwest Medicine, Seattle, Wash

March

128 Diffuse Septic Peritonitis. E. B. McDaniel, Baker City, Ore.
129 Injuries to the Eye and Adnexa (concluded). H. V. Würdemann, Seattle, Wash.
130 Gallstone Disease Complicated With Necrotic Pancreatitis. L. R. Markley, Bellingham, Wash.
131 *Relative Value of a Medical and Surgical Diagnosis of Obscure Intra-Abdominal Disease. R. C. Coffey, Portland, Ore.

131. **Diagnosis of Obscure Intra-abdominal Diseases.**—Coffey discusses the relation of the family physician, in dealing with obscure cases, to the specialist—internist, surgeon or other. He sums up the relative merits of the general practitioner, the internist, the surgeon and the laboratory man as follows: The general practitioner, whose time is taken up with the multitude of his duties, is not prepared to ferret out the intricate problems of the obscure abdominal cases. The internist is not always safe, for the reason that he takes great pride in his logic, based on too little experience from actual demonstration. The surgeon is apt to be rash, because of the ease and safety of an exploratory operation. The laboratory man is not safe when left alone, because of the many features of the disease which have weight, but which have not been shown in the laboratory. The key to the whole situation is a thoroughly reliable scientific laboratory, which is supported by the internist, the surgeon, the family physician, and the neurologist, and which should be independent of all. Coffey's conclusions as to obscure abdominal conditions are as follows:

1. A persistent and obscure chronic abdominal condition, which does not yield to treatment in a reasonable length of time, is out of the province of the average general practitioner or family physician and should be referred to a specialist.
2. The specialist will be either an internist, a surgeon, or a neurologist.
3. If the patient is below the usual cancer age (say 38) and presents no evidence of obstruction of any kind, it is safe to refer the case to the internist, who should call the surgeon if he fails to give relief or finds a surgical condition.
4. If the patient is in the cancer age (from 38 upward) and is gradually losing weight or presents symptoms of obstruction of any kind, the case should be referred to a surgeon, who should call an internist in consultation in case of doubt.
5. If the patient presents other nervous features aside from the abdominal trouble, the neurologist should be called.

Journal of the Michigan State Medical Society, Detroit

March

132 *Diagnosis and Treatment of Pleurisy With Effusion. F. Smithies, Ann Arbor.
133 The Layman Occupancy of Large Patches in the Field of Medical Practice. L. Connor, Detroit.
134 *Nerve Involvement in Fractures of the Extremities. C. S. Oakman, Detroit.
135 Diagnosis and Indications for Treatment of Cholecystitis. B. Holmes, Chicago.
136 Tertian Malaria Acquired in Michigan. W. M. Donald, Detroit.

132. **Pleurisy with Effusion.**—Smithies reviews this subject exhaustively, using for the purpose the case records of Professor Dock's service at the University Hospital, Ann Arbor. He discusses the laboratory findings and the phenomena on inspection, and insists on the importance of careful observations of external evidences of the movements of the diaphragm. The examination of 16 patients, while too small a

series to warrant absolute statements, suggests that the paravertebral triangle of dulness furnishes an important confirmatory sign in the diagnosis of pleural exudate. It is likely to be of special value when patients are too weak to submit to prolonged percussion of the back. Smithies lays considerable stress on the diagnostic importance of egophony. When one once gets the "aural picture" of what is really meant by egophony—the peculiar phonographic or telephonic, rather than bleating, quality of the spoken words—its presence, with other physical phenomena, warrants exploratory puncture. Smithies' cases have not shown that the variety of exudate—serous or purulent—markedly alters the degree of voice transmission. In the main, they bear out Baccelli's dictum, that the whispered voice is better transmitted through serous than through purulent exudates.

134. Abstracted in The Journal, Aug. 29, 1909, p. 785.

Laryngoscope, St. Louis, Mo.

March

137 Investigation on the Anatomic Structure and Relationships of the Labyrinth in the Reptile, the Bird, and the Mammal. A. A. Gray, Glasgow, Scotland.
138 Various Affections of the Voice and Their Local Causation. W. A. Wells, Washington, D. C.
139 Double Chronic Purulent Otitis Media With Extradural and Intradural Abscess, Recovery With Good Hearing. G. A. Leland, Boston.
140 Eruptive Conditions of the Nose and Throat From the Point of View [illegible] F. Cohn, New York.
141 Eruptive [illegible] Nose and Throat of Children, From a [illegible] L. Fischer, New York.
142 [illegible] L. Kenyon, Chicago.
143 [illegible] S. H. Large, Cleveland, O.
144 [illegible] Ear Disease With Involvement of the Labyrinth Limited to the Right Cochlear Portion and to the Left Vestibular Portion. G. W. Boot, Evanston, Ill.
145 Removal of Laryngeal Tumors by Direct Laryngoscopy. R. H. Johnston, Baltimore.
146 A Modified Tonsil Snare. J. R. Noyes, Brockton, Mass.

Texas State Journal of Medicine, Fort Worth

March

147 *Pathology of Old Age: Can it be Delayed? J. D. Covert, Fort Worth.
148 The Duties of the County Health Officer. J. M. Andrews, Wharton.
149 Starvation Treatment of Malignant Disease. E. H. Cary, Dallas.
150 *Case of Congenital Dislocation of the Hip.* O. L. Norsworthy, Houston.
151 Fibrosarcoma of the Brain. J. W. Rawls, Thornton.
152 *Treponema Pallidum.* M. A. Wood, Galveston.
153 Psychoneuroses. H. Taylor, Marshall.
154 Economic Problems in the Maldevelopment of the Upper Air Tract. H. B. Decherd, Dallas.
155 The Surgical Conscience. C. M. Rosser, Dallas.

147. **Old Age.**—Covert says that old age may be said to be the result of two great causes: First, the potential or inherited vitality of the tissues of the body: Persons coming from long-lived families, or other things being equal, have more inherited vitality than those coming from short-lived families. Their tissues are capable of standing the wear and tear of existence, are capable of assimilation and performing normal metabolism over a greater period of time. Thus a good constitution is of the greatest importance, if one is to live to an old age. Second, arteriosclerosis: i. e., all the degenerative changes in the arteries, other than those immediately due to syphilis. Man's heredity we can hope at present to modify only through popular education. Covert discusses arteriosclerosis and its causation, and holds that we must recognize an arteriosclerosis of senile origin, due to exhaustion of inherent potential vitality of the tissues. The first effect of this senile degeneration is to produce insufficiency of elimination. Proper attention to hygiene, diet and exercise and appropriate medication will correct the functional derangement, or rather assist in elimination, so that toxins will not be retained and thus the progress of the condition will be delayed. We are familiar with the arteriosclerosis of nephritis. Usually, the terminal stages of this condition are directly the result of it. It only emphasizes the importance of proper elimination through the kidneys at any stage of the disease, and especially so in its incipiency, as it is then that we shall be able to influence the condition favorably. By a thorough appreciation of all the causative factors of arteriosclerosis and the early recognition of their action in any case it is possible to delay its onset and the accompanying senile state.

Atlanta Journal-Record of Medicine

February

156 Some Cases of Blood in the Urine. A. L. Fowler, Atlanta.
157 Acute Traumatic Tetanus Treated by Magnesium Sulphate. A. P. Heineck, Chicago.
158 "Tricks in All Trades but Ourn." A. G. Hobbs, Atlanta.
159 Two Recent Cases of Gastroenterostomy. E. G. Jones, Atlanta.
160 Esthetic Alimentation. G. M. Niles, Atlanta.

Bulletin Johns Hopkins Hospital, Baltimore

March

161 *Multiple Hereditary Telangiectases Causing Hemorrhage (Hereditary Hemorrhagic Telangiectasia). F. M. Hanes, Baltimore.
162 *Place of Protozoology in the Medical School Curriculum. O. T. Schultz, Cleveland, O.
163 General Infection With *Bacillus Mucosus Capsulatus* Followed by an Areolar Abscess of the Liver and General Peritonitis. Autopsy. J. H. Hewitt.
164 Influence of Sewers and General Sanitation on the Prevalence of Tuberculosis. G. M. Kober, Washington, D. C.
165 *E. L. Trudeau, M.D.
166 Tuberculosis—A Plan of Study. W. L. Moss, Baltimore.

161. **Hereditary Hemorrhagic Telangiectasia.**—Hanes describes eight typical instances of a remarkable affection occurring in two unrelated families, reviews briefly all previously reported cases, and presents a general clinical picture. He defines it as "an hereditary affection manifesting itself in localized dilatation of capillaries and venules forming distinct groups, or telangiectases, which occur especially on the skin of the face, nasal and buccal mucous membranes, and give rise to profuse hemorrhage either spontaneously or as the result of trauma." Three factors seem of etiologic import, namely, heredity, repeated traumatisms and the abuse of alcohol. The red spots are true vascular formations and not blood extravasations. They blanch on pressure and regain their color on removal. Hemorrhage, profuse and productive of anemia, is the one constant symptom and the source of all other symptoms. In most cases it is an epistaxis. Multiple telangiectases constitute the sole characteristic sign of the affection. A split pea represents approximately their maximum development. They are true developmental faults, beginning in childhood, being increasingly annoying in adolescence, and a menace to health in later life. There is no reasonable diagnostic difficulty. Destruction of the telangiectases by chromic acid fused on a probe is the treatment. The action of the acid can be checked by an alkali. The condition constitutes a definite malady, and as such deserves a name of its own. Hanes therefore suggests hereditary hemorrhagic telangiectasia.

162. **Protozoology in the Medical Curriculum.**—Schultz says that a review of general protozoan biology is of value to the student, not only because of the mental training that it may give, but also because many of the facts brought out by a study of the protozoa are applicable to other subjects with which the student must become familiar. Cellular pathology in so far as it is really cellular pathology and not tissue or organ pathology, is at a standstill and can advance little further by the methods at present in use by pathologic investigators. He discusses the training of the powers of observation, the pathogenic action of the protozoa, and outlines the course of protozoan biology in use at the Western Reserve Medical College.

165. **Edward L. Trudeau, M.D.**—This is a description of a volume of reprints presented by his pupils to Dr. Edward L. Trudeau on his sixtieth birthday.

Journal of Advanced Therapeutics, Rahway, N. J.

February

167 Electricity in Diseases of the Female Pelvic Organs. H. F. Pitcher, Haverhill, Mass.
168 Possibilities of Radiant Light (continued). T. D. Crothers, Hartford, Conn.
169 Cataphoric Operations as Modified by the Topographic Situation of Particular Neoplasms, With Detailed Report of Cases (continued). G. B. Massey, Philadelphia.

Chicago Medical Recorder

March

170 *Vaginal Hysterectomy for Carcinoma of the Cervix. H. T. Byford, Chicago.
171 *Postoperative Nasal Hemorrhage. E. Pynchon, Chicago.
172 *Psychotherapy From the Psychologist's Point of View. J. R. Angell, Chicago.
173 *Serodiagnosis of Syphilis and Its Clinical Value. W. J. Butler, Chicago.

174 Some Fallacies in the Care and Treatment of Children H W Cheney, Chicago
175 Hydrotherapy in General Practice W L Secor, La Grange Ill
176 *Sterilization of Criminals and Other Defectives by Vasectomy. W T Belfield Chicago

170. Abstracted in Society Proceedings in The Journal, Jan. 16, 1909, p 243, and published in the *Southern Medical Journal*, March, 1909.

171. Published in the *Illinois Medical Journal*, March, 1909, the *Lancet Clinic*, March 6, 1909, and the *Journal of Ophthalmology and Oto Laryngology*, March, 1909.

172 Abstracted in The Journal, March 13, 1909, p 916.

173 Published in the *New York Medical Journal*, Jan 30, 1909, and abstracted in The Journal, Feb 13, 1909, p 588

176 **Sterilization of Criminals.**—Belfield urges the impotence of legislation restricting marriage, and says that the only effective measures will be, not such as appeal to the minds, but those that take effect on the bodies. Criminals and defectives must be prevented from procreation. Belfield discusses the methods suggested for that purpose, viz, isolation by colonization, and operative sterilization The colonization idea is mainly endorsed by those who see the necessity for some measures, yet hesitate at castration. This measure, though often discussed, Belfield thinks will probably never secure legal sanction, because it destroys the subject's sexual capacity. Vasectomy, on the other hand, sterilizes without the slightest impairment of sexual power or pleasure It merely closes the minute canals through which the spermatozoa must pass from the testes to the organs which secrete the bulk of the seminal fluid and deposit it in the genital canal of the female The absence of spermatozoa from this fluid does not impair the mechanism of erection and ejaculation This is abundantly proved by the robust sexual health of thousands of men who have been unwittingly sterilized through bilateral epididymitis, and who never suspect that their procreative functions are not perfectly normal until their marriages prove barren; they are potent, but not fertile. That vasectomy itself is equally harmless to sexuality is shown by the experience of those on whom it has been performed Among these, within Belfield's personal knowledge, are married men who chose this means, rather than criminal abortion, to prevent the transmission to offspring of their own hereditary taints, such as insanity and syphilis Vasectomy, says Belfield, is an office operation; it can be performed in a few minutes under cocain anesthesia, through a skin cut half an inch long; it entails no wound infection no confinement to bed; it is less serious than the extraction of a tooth

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FOREIGN

Titles marked with an asterisk (*) are abstracted below Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest

British Medical Journal, London

March 13

1 Hernia Strangulated in the Foramen of Winslow C A Morton
2 *After Results in a Series of Operations for Radical Cure of Hernia R W Murray
3 Strangulated Hernia Through the Foramen of Winslow Operation Recovery T Sinclair
4 Case in Which Enterospasm was a Pronounced Feature, Necessitating Abdominal Section Four Times Within Ten Months C W Dean
5 *Diagnosis and Treatment of Chronic Ulcer of the Stomach and Duodenum A Thomson
6 Primary Diffuse Pneumococcus Peritonitis: Treatment by Drainage and Pneumococcus Vaccine Recovery H B. Robinson
7 Incisions for Operations on the Upper Abdominal Organs A Don
8 Intestinal Obstruction Produced by Enormously Distended Stomach A E Maylard
9 Physiology of the Female Genital Organs III —The Correlation of the Uterus and Ovaries W B Bell and P. Hick

2 **Hernia.**—Murray describes his after results in a series of 217 operations for the radical cure of hernia; they are as follows: Twelve months or more after operation 198 operations had proved satisfactory; 12 patients were unaccounted for, 3 had relapsed and 4 had died He uses these figures as an argument in favor of the saccular, or congenital, origin of hernia. He describes separately his methods of operating in inguinal, femoral and umbilical hernia, and says that if results such as he records can be obtained by an operation which essentially and almost entirely consists in the complete removal of the sac, this surely is strong evidence in favor of the sac being the essential cause of the hernia, and is also an encouragement to surgeons to simplify their methods when operating, to pay less attention to repairing the abdominal wall and more attention to the complete removal of the sac.

5 **Chronic Ulcer of the Stomach and Duodenum.**—Thomson analyzes a consecutive series of fifty cases in which a chronic ulcer of the stomach or duodenum was not only diagnosed clinically but was subsequently demonstrated at operation He discusses the site, sex incidence, age range, remissions, pain, relation of pain to taking of food, tenderness, vomiting, hemorrhage, the use of the test meal, constipation, visible peristalsis and hour-glass cases. While Thomson believes hyperacidity to be an essential factor in the production of an ulcer, he does not believe it to be the cause of the pain, which he considers due to the movements of that part of the stomach in which the ulcer is situated. The hunger pain of duodenal ulcer he considers due to the fact that as the stomach empties, the pylorus tends to move toward or even to the left of the middle line, thus putting traction on the duodenum and causing pain or discomfort in the presence of an ulcer. He discusses the diagnosis of chronic ulcer of the stomach and duodenum from gastric neuroses, carcinoma in the stomach, and carcinoma in the vicinity of the stomach. Chronic ulcer can only be cured by surgical means Operation is recommended because the ulcer will not get well otherwise, because it causes suffering and prevents earning a living, and because it may become dangerous to life through starvation, hemorrhage, perforation or transformation into cancer Resection has only a limited field; it is always difficult and dangerous It was done in 3 cases with 1 one death. Gastroenterostomy was done in 47 cases with 3 operation deaths Of those who survived the operation, 1 was lost sight of. 5 died at various periods, from different conditions, and the remaining 38 are all under observation and their physicians in most cases speak in enthusiastic terms of the benefits derived from operation

Lancet, London

March 13

10 *Disinfection and Disinfectants R T Hewlett
11 *Mechanism Underlying the Various Methods of Artificial Respiration A Keith
12 Tabes Dorsalis with Unilateral Anesthesia: A Contribution to the Pathogenesis of the Disease H T Thompson
13 Hydrochloric Acid in the Gastric Contents in Cancer S M Copeman and H W Hake
14 Medical Ionization: Its Uses and Possibilities N S Finzi
15 *Primary Ovarian Actinomycosis F E Taylor and W E. Fisher
16 *Method of Treating Fracture of the Clavicle F Romer
17 Oligohydramnios with Partial Amputation of a Foot Occurring in a Uterus Unicornis L C Blackstone

10 **Disinfection.**—In the first Milroy lecture, Hewlett reviews the natural processes that bring about disinfection outside the body, dilution, desiccation, filtration, light, heat, crowding out and ammonia in the environment His experiments show that the violet and ultraviolet rays have a germicidal effect on the *Bacillus prodigiosus*. He discusses dry heat and steam disinfection Fumigation with sulphurous acid as usually practiced he considers of questionable utility. Formaldehyd, when properly applied, is probably more active than sulphurous acid and chlorin gas still more so, though it is difficult of use. Spraying and washing with solutions he considers preferable to fumigation He would like to see two groups of schools used for tests of the comparative value of disinfectants and spraying with water and washing Disinfectant powders are chiefly of value as deodorants He summarizes the requirements of an ideal chemical disinfectant as follows:

1 The substance must be cheap
2 It should be relatively non poisonous
3 It should have no corrosive or other action on the ordinary metals and it should not stain linen, etc
4 It should not separate into layers on standing, and should run freely from the containing vessel at all times
5 It should possess high germicidal power.

6 It should be miscible with ordinary water in all proportions, to form a stable solution or homogeneous emulsion which should not separate appreciably into layers on standing
7. It may with advantage have a solvent power for grease, for greasy surfaces have often to be disinfected
8 Its germicidal power should *not be markedly reduced in* the presence of organic matter.
9 Heating to a moderate temperature should not affect it, so that *it may be used hot if desired.*

11. **Artificial Respiration.**—In the first Hunterian lecture, Keith reviews the methods of artificial respiration from 1774. He discusses the methods advised by the Royal Humane Society, those previously in use in England and on the continent, the experiments and recommendations of John Hunter, De Haen, Fothergill, Goodwyn, Kite, Brodie and Erichsen. He cites the recommendations of Cullen and the use of bellows and tobacco fumes; and describes the condition of the lungs in asphyxiation, contrasting inflation of the lungs with natural breathing.

15. **Primary Ovarian Actinomycosis.**—Taylor and Fisher say that only six cases for actinomycosis of the ovary are on record, and none of these are primary. They report a case of the primary disease. The patient had lived in London for 16 years, but in 1903 and 1904 was brought into contact with hay, straw and corn, the usual sources of actinomycosis, and it is noteworthy that the symptoms date from 1904. Since the ovary occupies a secluded position in the closed abdominal cavity, it can only be infected either by the direct extension of disease from an affected contiguous organ or by the blood stream. As in this case there was no evidence of disease in any adjacent organ, the streptothrix must have reached the ovary by way of the blood stream, the mode of entry into the body being, they suggest, some cryptogenic focus—e. g., the tonsil, through which it is well known micro-organisms may pass into the blood stream without producing any local lesion.

16. **Fracture of the Clavicle.**—Romer describes the following method of treating fracture of the clavicle without confining the arm to the side: "Three strips of firm adhesive plaster, each an inch and a half in width should be applied, from a point immediately above the nipple to a point below the angle of the scapula. The middle strip should cover the seat of the fracture and should be first applied; the lateral ones, slightly overlapping it, should extend about an inch and a half on either side. Each strip should first be made to adhere strongly in front, and, while it is supported and fixed by the fingers of one hand, should be carried over the shoulder by the other, with steady pressure, and made to adhere as it goes." It is advisable to apply another strip to encircle the shoulder joint, one end being brought diagonally across the scapula to below its angle. A thin layer of wool should be placed in the axilla. The strapping once applied the patient can dress in the ordinary way, the arm of the injured side being supported by a sling.

Clinical Journal, London

March 10

18 Aneurism A. A. Bowlby
19 Occult Primary Cardiac Hypertrophy. H. B Shaw.
20 Intrathoracic Growths C Wall.

Medical Press and Circular, London

March 10

21 Present Position of Intravenous Treatment. F. Mendel
22 Surgical Aid in Chronic Ulcer of the Stomach J. A Nixon
23 The Feeding of Infants with Undiluted Citrated Milk F. Langmead
24 Chronic Edemas Due to Local Degenerative Changes F. P. Weber
25 Ionization in Treatment of Skin Disease. E G. Little.

Practitioner, London

March

26 Points in Diagnosis and Treatment of Derangements in the Knee Joint. A E. Barker
27 Dr Marshall Hall and the Decay of Bloodletting. D'A. Power
28 Uterine Hemorrhages. F E Taylor.
29 Acute Infection of the Kidney by the *Bacillus Coli Communis.* G Wright.
30 *Injection of Broad Ligaments with Quinin for Prolapsus Uteri. J. I. Parsons
31 Resection of Large Lengths of Small Intestine for Gangrene C. P. Childe
32 Present State of our Knowledge of Pemphigus J. M H. MacLeod
33 Retrospect of Otology. M. Yearsley.
34 Appendicitis in General Practice. G. McKerrow and J. S Geikie.
35 Treatment of Relapsing, Recurrent and Chronic Appendicitis J Allen
36 Principle of Proportional Representation in Clinical Radiography W Cotton
37 Hodgen's Splint in Private Practice G. C. F. Robinson.

30. **Prolapsus Uteri.**—Parsons rejects the view that the pelvic floor and intra-abdominal pressure are chief factors in supporting the uterus. He considers the important factor to be, as stated by Dr. H. Savage, in 1882, the connective tissues running from the side of the pelvis with the vessels to the side of the uterus. The ideal treatment would be some method of strengthening these ligaments, rather than of creating a new one by attachment to the abdominal wall. From observation of the fact that subcutaneous injection of quinin in malaria produced effusion and caused a swelling that remained for months, it occurred to him to try the effect of irritating the cellular tissue of the ligaments with quinin, so as to *produce an effusion of lymph that should form new connective tissue.* He describes his technic as follows: Before the operation is performed, the bowels are thoroughly cleared out and the vagina is douched with a 1 to 2,000 solution of perchlorid of mercury. An anesthetic is advisable, although the operation takes *only a few minutes.* A bladder sound is passed and the extent to which it falls down on each side of the uterus is noted. A Sims speculum is then inserted, to hold down the posterior vaginal wall, and a retractor, to hold up the anterior vaginal wall; it should be wide enough to draw the bladder well up and out of the way. A straight sound is then passed into the uterus and held horizontally by the left hand of the operator, while the syringe containing the solution is held in the right hand. The injection is made with a needle 1 inch long on each side of the uterus through the vaginal wall at a distance of ¾ of an inch from the cervix, and a little below the level of the external os. If the cervix is much enlarged, which often happens in prolapsus, the point of injection should be nearer to the cervix. The aim of the operator should be to insert the needle exactly half way between the position of the normal cervix and the pelvic wall; then the nearest portion of the uterine artery and veins and the ureter lie to the right of the needle and above it. Another point is that, in the outer half of the broad ligament in this situation, there are no veins of importance. In cases of chronic procidentia, it is advisable to inject somewhat lower, on account of the tendency of the bladder to pouch down on each side of the cervix. The needle is apt to be corroded by the acid in the solution, and should therefore be tested before use, and thoroughly washed out afterward in warm water. A cup and stem rubber vaginal pessary is then inserted, and secured by tapes to a band around the waist. After three days it may be removed. The patient is instructed to lie on her face or side as much as possible. The bowels should be kept open every day, but free purging must be avoided. Cinchonism is rare. The exact solution is 12 grains of the ordinary sulphate of quinin, dissolved in 30 minims of dilute sulphuric acid, and 30 minims of distilled water. It should be made fresh for each patient As the space on the left side is encroached on by the rectum, Parsons usually injects 10 minims less on that side than on the right. Repair of the perineum if necessary, adds very considerably to the comfort of the patient and also helps the ligaments. Taking all the easiest cases and also the most difficult, the latter forming by far the larger proportion, and including a great many cases of chronic procidentia, Parsons finds that in 75 per cent. the uterus has kept up permanently, 20 per cent. were greatly improved, and in 5 per cent the measure failed.

Dublin Journal of Medical Science

March

38 A Year's Mental Hospital Work. W R Dawson.
39 Some Cases of Gastric Surgery. W. Taylor
40 *Upland Surface Water as a Carrier of Lead H. English
41 Hand Sterilization (concluded) C. G Cumston.

40. **Upland Surface Water as a Carrier of Lead.**—English refers to the solvent properties of water on lead piping, and points out that all waters, except those containing alkaline carbonates, phosphates, silicates or sulphates, possess this

solvent action. These salts, when present, however, combine with the dissolved lead, forming an insoluble compound, which coats the pipe and prevents further erosion. Upland surface water is rich in a material called humic acid, which is derived from decomposing vegetable matter in the collecting ground. This material aids the solution of lead from the pipes, and in one case a certain town consumed such water for a large number of years, with an average of no less than from 4 to 5 grains of lead to the gallon. English then discusses in detail the pathology, symptomatology and treatment of lead poisoning.

Journal of Tropical Medicine and Hygiene, London

March 1

42 Goundou in the West Indies C. W Branch
43 *Etiology and Treatment of Beriberi P Van Andel
44 Three Cases of Infection by *Schistosomum Japonicum.* E C. Peake
45 Hemogregarines of Snakes (concluded). L W. Sambon

43. **Beriberi.**--Van Andel's two points are: (1) That beriberi may be cured without removal of patients from the endemic area, and by attention to diet, a leguminous diet being recommended; and (2) that the induction by the use of drugs of cardiac irregularities suggesting beriberi, in areas where the disease prevails, is a possibility to be borne in mind.

Indian Medical Gazette, Calcutta

February

46 Tuberculous Diseases in India G A Harris
47 Gleanings from the Calcutta Postmortem Records L. Rogers
48 Ozone as a Water Purifying Agent in India D. Munro
49 *Biliary Cirrhosis of Children, Otherwise Known as Infantile Liver F Pearse.

49. **Biliary Cirrhosis of Children.**—Pearse describes a peculiar disease of the liver in infants, attended with high mortality, that has been noted for some years in Bengal. Post mortem, the kidney shows marked degeneration and shedding of the epithelium, and there are edema of the feet and legs, possibly of face and hands, and some fluid in the abdomen. All the tissues are bile stained. In early stages the liver is enlarged; later it is small; there is no perihepatitis, but the liver is tough and granular. In the interlobular bands many bile ducts are found. The degenerated liver cells lie loosely in a network formed by the intercellular fibers, and there is no evidence of syphilis. The disease is limited to children between six months and two years of age. Its onset is insidious, and seems to run in families. It occurs among rich and poor, and among infants fed both by the mothers and in other manners. It may last from one month to two years. There are enlargement of the liver, nausea, loss of appetite, vomiting, sallow complexion, thirst and fever. Edema occurs in the latter stages. The stools are clayey and the urine is deeply stained The author concludes that it is a parasitic disease, but whether microbic or due to large forms there is no evidence to show.

Annales de Gynécologie et d'Obstétrique, Paris

February, XXXVI, No. 2, pp 65 128

50 *Polyneuritis during Pregnancy (Cas de polynévrite pendant la grossesse) L -A Krivsky
51 Two Cases of Vaginal Cysts Originating in the Wolffian Duct Abadie and Raugé
52 *Tuberculosis of Bartholin's Gland L Lecène.
53 Placental Polyp with Hyperplasia of the Decidua. J -L Faure and L Bordin
54 The Antisepsis of Abortion. (Antisepsie de l'avortement) J. Lucas Championnière

50 **Polyneuritis during Pregnancy.**—Krivsky relates a case of acute polyneuritis without fever, proving fatal in less than two weeks in a previously healthy young woman, eight months pregnant. The urine had been normal and there was no lead poisoning or other known factor in the etiology. The most plausible explanation seems to be that the trouble was due to autointoxication (Pinard) such as is encountered in uncontrollable vomiting, but in this case there had been only a little nausea and vomiting during a preceding pregnancy and almost none in the present one. Recent sorrow may have possibly contributed. He has found on record only 46 cases of this toxic neuritis in pregnant women, with 9 fatalities Recent Russian medical literature has contained a number of cases of Korsakoff's psychosis in pregnant women, including one in which the psychosis developed after uncontrollable vomiting. One of the authors, Alexandroff, insists that the same cause is responsible for both the vomiting and the polyneuritis The symptoms recall those of phosphorus poisoning. The loss of the internal secretion of the ovary may entail the autotoxemia; under normal conditions, outside of pregnancy, it favors the oxidation of toxins containing phosphorus, etc. In the case related, in less than a week the uterus made efforts to expel its contents. Premature delivery was induced with the inflatable bag, after which there was slight improvement in the symptoms of paralysis. The paralysis had commenced with involvement of the motor nerves spreading to the pneumogastric and phrenic nerves but sparing the functions of the bladder and rectum.

52. **Tuberculosis of Bartholin's Gland.**--Lecène gives the details of 2 cases, the only ones of isolated tuberculous bartholinitis of which he has knowledge.

Annales Générales de Médecine, Paris

February, LXXXIX, No 2, pp. 65-128

55 Mesenteric Cyst (Cas de kyste dit du mésentère.) B. Cunéo
56 *Therapeutic Action of Adrenalin applied to the Skin G. Sardou
57 Previous State of the Health in Industrial Accidents (L'état antérieur dans les accidents du travail) E. Dabout
58 Serodiagnosis of Syphilitic Nature of Certain Cases of Cirrhosis of the Liver (Diagnostic de la nature syphilitique de certaines cirrhoses du foie par la séro réaction de Wassermann) C Esmein and M Parvu
59 Post traumatic Galloping Sound (Bruit de galop post traumatique) P Londe

56. **Local Action of Suprarenal Preparation Applied to the Skin.**—Sardou summarizes out of a much more extensive experience in the last six years fifty-four cases to show the remarkable benefits that may be realized from the simple measure of painting the skin with adrenalin. Among the conditions treated were toxic erythemas, urticaria, acne, sunburn, bee sting, eczema, pruritus, nevus, contusion, inflamed chilblains, headache and congestion of the face from indigestion, sciatica without neuritis, arthralgia, arthritis, varices, etc. The adrenalin applied to the skin is rapidly absorbed and acts on the vessels in the region. Durable vasoconstriction is obtained by a moderate, graduated application of the adrenalin, renewed according to the effects produced. Too large a dose, at first, paralyzes the reaction. Hemorrhoids are benefited when moderate and recent unless they are the result of portal hypertension. The measure may also fail on account of sclerosis and paresis of the walls of the vessels. The effects of the adrenalin are similar to those of constriction hyperemia. There is no doubt that the adrenalin is able to act in the depths of the tissues and to aid their defensive efforts, or the adrenalin may arouse them to more effective resistance. Applied locally, it re enforces the local defenses without waiting for general reactions, the outcome of which it is impossible to foresee

Archives des Maladies du Cœur, etc., Paris

February, II, No 2, pp 65-127

60 Adams Stokes Syndrome with Bigeminal Rhythm. E Barié.
61 *Paralysis of Left Inferior Laryngeal Nerve in Affections of Mitral Valve W Osler.

61 **Paralysis of the Left Laryngeal Nerve in Mitral Affections.**—Osler has encountered three cases of laryngeal paralysis in the course of a mitral affection, and relates the details. The symptoms suggested the presence of an aneurism; in one case the stretch of the recurrent nerve compressed between the wall of the auricle and the aorta was whiter and more opaque than the rest of the nerve.

Archives de Médecine des Enfants, Paris

March, XII, No 3, pp 161 240

62 Human Contagion the Main Factor in Tuberculosis in Children (Rôle de la contagion humaine dans la tuberculose infantile) J Comby
63 Influence of Condition of Health of Dairy Employées on Healthfulness of Milk (Influence de l'état de santé des laitières sur la valeur du lait alimentaire) Moussu
64 *Triangle of Dulness as Sign of Serofibrinous Pleurisy in Children (Sur le signe du triangle de Grocco Rauchfuss Hamburger.) J Brudzinski.

64. **Paravertebral Triangle of Dulness in Pleurisy in Children.**—Brudzinski warns that the extreme elasticity of the thorax in children must be borne in mind in examining for this sign. Although it is not pathognomonic of serofibrinous pleurisy, yet its presence in connection with other signs and symptoms of pleurisy he regards as important confirmatory evidence. He cites a few typical cases to show the technic and theorizes to explain the causes which cooperate in producing the area of dulness.

Bulletin de l'Académie de Médecine, Paris

March 2, LXXIII, No. 9, pp. 265-293

65 Rail Connection with Mecca from the International Sanitary Standpoint. (Le chemin de fer du Hedjaz au point de vue sanitaire international.) A. Chantemesse and F. Borel.
66 Hereditary Atrophy of the Papilla of the Optic Nerve. F. Raymond.

Presse Médicale, Paris

February 27, XVII, No. 17, pp. 145-152

67 History of Case of Facio-scapulo-humeral Atrophic Myopathy under Observation for 30 Years. L. Landouzy and L. Lortat-Jacob.
68 Treatment of Lupus of the Face. De Beurmann and Degrais.

March 3, No. 18, 153-160

69 Aneurism of Hepatic Artery. T. Tuffier.
70 Symptoms of, and Indications in, Abdominal Contusions. Dehelly and Lagane.

Revue de Médecine, Paris

January, XXIX, No. 1, pp. 1-80

71 *Granulation of the Erythrocytes. Staining Methods. (Les hématies à granulations. Procédés de coloration. Valeur [illegible] N. Fiessinger and P. Abrami.
72 * [illegible] Cholemia. (Pathogénie de l'ictère acholu- [illegible] W. Starkiewicz.

February, No. 2, pp. 81-160

73 *Experimental Reproduction of Tuberculous Cirrhosis of the Liver. H. Gougerot.
74 *Interlobar Serofibrinous Effusions in the Tuberculous. (Les épanchements sero-fibrineux de l'interlobe.) C. Sabourin. Commenced in No. 1.

71. Reviewed editorially April 3.

72. This condition was discussed editorially in The Journal, March 6, page 776.

73. **Experimental Reproduction of Cirrhosis of the Liver.**—Gougerot states that he has succeeded in reproducing in guinea-pigs all the various processes of human tuberculous hepatitis. Some of them were reproduced to their finest details, especially the forms of cirrhosis with hypertrophy and atrophy. All the evidence presented confirms the rôle of the tubercle bacillus in the development of such affections in man. The tuberculous nature of certain forms of cirrhosis, formerly attributed to alcohol, is fully established by the research related in which he inoculated animals with pure cultures of the tubercle bacillus and cirrhosis of the liver developed in consequence, the series being too numerous to be ascribed to *mere chance*. The experiments show that the tubercle bacillus alone, without the aid of alcohol, is able to induce typical cirrhosis of the liver.

74. **Interlobar Effusion in the Tuberculous.**—Sabourin reviews his experience with fifteen cases of pulmonary tuberculosis in which an interlobar effusion developed. There seemed to be always a tendency to spontaneous reabsorption and to a cyclic course, suggesting a possible tuberculous embolism as the cause. Treatment can be only expectant, ready to remove the effusion if it causes symptoms or if absorption is too long delayed. The area of dulness is suspended, as it were, with resonance above and below, or it may [illegible] like a scarf crossing the lung area, narrow above [illegible] toward the median line, widening below and outward. Besides the usual symptoms of pleurisy, the area of dulness may be tender and the liver may be pushed downward and the heart toward and beyond the sternum.

Semaine Médicale, Paris

March 10, XX[illegible] 10[illegible]-120

75 *Phlegmonous Enteritis [illegible] of Small Int[illegible]mary Cancer, and
76 *Arm and Eye Syndro[illegible] [illegible]yndrome brachio-
Contraindications [illegible] [illegible]dge of [illegible]ntra-indication de
oculaire dans le ca[illegible]
l'interv[illegible]

75. **Phlegmonous Enteritis.**—Cheinisse states that one Russian clinician reports five cases of this rare affection encountered since 1899, and he reviews this and other material from the literature describing the clinical picture in detail. The disease seems to have a predilection for the first part of the jejunum and for the duodenum, the regions unable to slide out of the way in case of external trauma or of excessive intra-abdominal pressure. Trauma affecting the abdomen is usually felt most severely in this region. Streptococci were isolated from the lesions in all the cases in which bacteriologic examinations were made, plus the staphylococci in one case. A preceding acute catarrhal enteritis was observed in some cases and in Moiseev's four cases there was a concomitant acute sore throat or gastritis. The clinical picture of phlegmonous enteritis is about the same as of phlegmon of the stomach, with the difference that the reaction on the part of the peritoneum is so prompt and so intense that it is liable to mask the phlegmon in the intestinal wall or even to precede its actual development. The peritoneal reaction is particularly rapid and intense when the phlegmonous inflammation is located in the jejunum. When a laparotomy fails *to reveal any explanation of the symptoms in abdominal* trouble, the possibility of this affection should be borne in mind. Treatment should be along the same lines as for phlegmonous gastritis.

76. **Arm and Eye Syndrome with Mammary Cancer.**—Kiproff describes a case of cancer of the breast in which the compression or involvement of the nerves was revealed by paralysis and sensory disturbances in the nerves of the forearm associated with ocular disturbances, ptosis of the lid, sinking in of the eyeball, dilatation of the conjunctival vessels and myosis. These symptoms reveal localization of the malignant process in the inner, deeper part of the supraclavicular fossa, and warn that metastases of the mammary cancer must be sought in this region.

Archiv für klinische Chirurgie, Berlin

LXXXVIII, No. 3, pp. 631-902. Last indexed March 13, p. 929

77 *False Incarceration of Hernias. (Die Scheineinklemmung von Brüchen.) P. Clairmont.
78 *Suture of Arteries. (Arteriennaht.) A. Smith.
79 Suture of Stab Wounds of Lung. (Naht bei Stichverletzungen der Lunge.) L. Stuckey.
80 Review of 2,009 Cases of Fractures Treated at Berlin Policlinic. P. Bartsch.
81 Case of Traumatic Aphasia with Right Hemiplegia in a Left-Handed Boy. Recovery after Trephining. H. Miyake.
82 *Extirpation of Tumors in Motor Area of Brain. (Zur Exstirpation der Gehirntumoren in den motorischen Rindencentren.) Id.
83 *Tuberculosis of Spleen. (Milztuberkulose.) H. Strehl.
84 *Operative Treatment of Paraplegia in Tuberculous Spondylitis. M. A. Wassiliew.
85 *Carcinoma of Bladder in the Young. (Das Blasencarcinome im jugendlichen Alter.) S. Hadda.

77. **Pseudoincarceration of Hernias.**—Clairmont, assistant at Eiselsberg's clinic at Vienna, applies the term *Scheineinklemmung* to the cases of hernia in which the symptoms of incarceration of the hernia persist after apparently successful reduction of the hernia. In ten such cases at the clinic seven terminated fatally. This experience shows the variety of affections which may lead to obstruction of the bowel. A hitherto free hernia may suddenly become irreducible, painful and tender, and may show less or increased tension. If symptoms of ileus develop at the same time, incarceration of the hernia is generally assumed and attempts at reduction may be made. If the taxis succeeds, the patient is supposed to be cured and no other cause is sought for the ileus. Or the hernia may resist reduction and unusual findings at the herniotomy may suggest the possibility of a second occlusion of the intestine at some other point. The dangers of these cases are so manifold that Clairmont devotes nearly 100 pages to the subject, summarizing from the literature all the similar cases he can find—a total of 107. In one group the ileus was the result of incarceration of a second hernia, internal or external, in other groups to compression from kinking, volvulus or invagination, a foreign body, benign or malignant stenosis or peritonitis from pancreatitis, appendicitis, trauma or extrauterine pregnancy. The prognosis depends on early differ-

entiation and correct surgical intervention. The cases of this kind in the literature are listed as "consecutive incarceration" or "consecutive strangulation," "combination ileus," "relative" and "pseudoincarceration," and his own term, "sham incarceration."

78. **Suture of Arteries.**—Smith gives an illustrated description of experimental research on the suturing of arteries, showing the points to be avoided and the development of the technic which he finally recommends.

82 **Extirpation of Brain Tumor in Motor Area.**—Miyake reports a case in which he removed an encapsulated glioma from the motor area for the left leg without injury of the brain, and the patient has been entirely cured with no appreciable symptoms during the three years since. He was a man of 27 and the first slight symptoms of the tumor were noticed six years before the operation. The outcome was equally good in a second case in which a gumma in the left central convolution was removed after fifty days of energetic antisyphilitic treatment had failed to induce any improvement The patient rapidly recovered and is practically cured, only a few traces of the previous disturbances being still apparent. The symptoms in this case had been noted for two years, commencing with sudden paralysis of the right leg, slight syncope and intense headache, with Jacksonian epileptic seizures coming on after about twenty months.

83 **Tuberculosis of the Spleen.**—Strehl reports a case of isolated tuberculosis of this organ developing insidiously during twelve months and then attracting attention by the enlargement of the spleen and disturbances from adhesions between it and the stomach and abdominal wall, sensations of oppression in the region, loss of appetite, emaciation and weakness. Splenectomy has been done ten times for tuberculosis, with four deaths, but the fatalities should not be attributed to the operation. In one case on record the spleen was merely incised and sutured to the abdominal wound, the patient being completely cured by this simple procedure. Strehl adds that tuberculosis in other organs contraindicates splenectomy, but that incipient involvement of the peritoneum may retrogress, as it frequently does after nephrectomy for tuberculosis.

84 **Operative Treatment of Paraplegia with Tuberculous Spondylitis.**—Wassiliew has operated in six cases and the patients were cured in four of the five cases in which he opened up the prevertebral space. One patient lived nine years and another is healthy to date after four years. The best results were obtained with Ménard's "costotransversectomy"; this reaches the seat of the lesion better than laminectomy The ends of one or two ribs and the attached transverse processes of the vertebræ are resected and access is thus obtained into the posterior mediastinum. Ménard does not lay much stress on curetting the vertebræ but restricts the operation to removal of pus, cheesy masses and sequesters, with subsequent drainage. Wassiliew operated as soon as the paraplegia developed when other vital organs were not involved, not waiting for conservative measures

85 **Carcinoma of the Bladder in Youth.**—Hadda comments on the rarity of carcinoma in youth—only 0 42 per cent. occurring under 20 in 7,330 cases of carcinoma at fourteen clinics In 5,006 cases of carcinoma at all ages, less than 1 per cent were located in the bladder and none was in a patient under 20. He describes a case in a clerk, 19 years old, with bladder symptoms apparently cured by removal of a large concrement There were no further disturbances for five years, but the symptoms then recurred and an inoperable carcinoma was discovered. The prognosis is more unfavorable the younger the patient.

Beitrage zur Geburtshilfe und Gynaekologie, Leipsic

XIII, No 3, pp 339-496 Last indexed March 20, p 1001

86 Causes of Coagulation of Fibrin and Formation of Infarcts in the Human Placenta (Genese der Fibringerinnungen und Infarktbildungen der *menschlichen* Placenta) B Huguenin
87 *Endometritis G Schickele
88 Streptococci in the Vagina. (Zur Vaginalstreptokokkenfrage.) E Konrad
89 Repeated Pubiotomy on Same Patient. (Wiederholte Hebosteotomie) O Hoehne
90 *Obstetrical Chair (Ein Hangelage Geburtsstuhl.) R Pfister
91 Metastases of Uterine Carcinoma in the Heart (Metastasen im Herzen bei Uteruskarzinom) H Offergeld
92 *Hemorrhage in the Eye in the New born (Blutungen ins Auge bei Neugeborenen) M Stumpf and von Sicherer
93 Teratomas in Thyroid Region. (Teratome der Schilddrusengegend) H Hunziker.

87. **Endometritis.**—Schickele comments on the frequent finding of normal mucosa when the uterus is curetted for supposed endometritis, and reaffirms that much that is taken for endometritis is in reality nothing more than the natural premenstrual congestion. At the same time he presents evidence to prove the existence in some cases of glandular changes which are really pathologic, and have nothing to do with menstrual congestion. In other cases, the mucosa may be chronically congested in consequence of displacement of the uterus or of inflammation in the adnexa, or is primarily affected. Chronic congestion in the uterus from inflammation in the adnexa leads to overnourishment of the glands and they become hypertrophied and functionate to excess increasing the discharge, which thus is one of the most constant signs of endometritis. The menstrual flow comes on earlier and lasts longer than normally and may become irregular. In a recent case the patient presented phases of excitement alternating with periodical psychic depression, evidently traceable to vasomotor disturbances Since she has been in this condition the menstrual periods have lasted longer and they come on irregularly, while the flow has been more profuse Frequent curetting failed to modify the condition —the flow is becoming constantly more profuse, but the scrapings still show normal tissue. Curettement fails to benefit in such cases as this, or has merely a transient effect. It is important to curette once in all such cases, but if the primary trouble is not cured the same sequence of disturbances will occur again later. In conclusion, Schickele emphasizes the fact that the changes in the mucosa observed in many conditions of chronic inflammation in the adnexa with uterine affections and displacements and with general vasomotor disturbances are in reality secondary Chronic hyperemia or lasting congestion in the interglandular tissue predominate here, distinct from changes in the glands themselves.

90. **Obstetrical Chair.**—The chair described is more like a table on which the woman lies with the region of the perineum at the apex of the obtuse angle formed by the legs slanting downward at an angle of 130 degrees. The hyperflexion of the front part of the pelvic ring in the sacroiliac joint is the main factor in the benefit derived Between the uterine contractions the feet rest on a cross bar and during the labor pain the woman grasps handles attached to the frame of the chair to aid in straining He gives an illustration of the chair and reports two cases to show the convenience and help of the chair as it is in use at von Herff's clinic at Basle.

92 **Hemorrhage in the Eye in the New-Born.**—Stumpf and von Sicherer noted hemorrhage in the retina or optic nerve in 42 out of 200 children examined soon after birth It seems evident that the stress of delivery is able to induce hemorrhage by the changes and congestion induced by the birth act The trouble is generally the result of interference with the circulation, and he questions the after-fate of children with this hemorrhage in the eye, querying whether it might not lead later to the development of a glioma. The hemorrhage is probably the result of pressure on the head from the soft parts of the birth passage. It is particularly liable to occur in case of existing asphyxia or premature delivery, as in such cases the blood vessels are peculiarly fragile, not having reached their full development.

Berliner klinische Wochenschrift

March 1, XLVI, No. 9, pp 381-428

94 Cardiovascular Symptoms with Goiter (Kropfherz) W. Scholz
95 Reform in Treatment of Placenta Prævia L Blumreich
96 *Frequency of Tuberculosis in the Cadavers at the Berlin Pathologic Institute (Haufigkeit der Tuberkulose am Leichenmaterial.) H. Beitzke

97 Congenital Defects. (Zur Diagnose der kongenitalen Vitien.) J. Plesch.
98 Questionable Importance of the Ocular Reaction for Prognosis of Tubercul [illegible] (Ist die Ophthalmoreaktion für di [illegible] er Tuberkulose der Schwangeren [illegible]
99 *Constitution and Physical Development. (Konstitution und Körperform.) R. Lennhoff.
100 The Phagocyte Count as Means of Determining the Action of Tonics, etc. (Eine neue biologische Methode zur Bestimmung des Wertes von organischen Präparaten.) Piorkowski.
101 Serodiagnosis of Syphilis with Active and Inactive Serums. (Die Wassermann'sche Reaktion bei "aktiven" und "inaktiven" Sera.) H. Boas.

96. **Frequency of Tuberculosis in Hospital Cadavers.**—Beitzke gives comparative tables showing the proportion of cases in which tuberculous lesions are discovered at autopsy in various cities. At the Berlin Pathologic Institute tuberculous lesions were found in 13.6 per cent. of 397 child cadavers, or, excluding the new-born, in 27.3 per cent. of 198 children, and in 41.8 per cent. of 703 adult cadavers. The general average thus for all ages is 13.9 per cent., or, excluding the new-born, 16.9 per cent. Naegeli's statement that nearly every adult has or has had tuberculosis, should be modified, Beitzke thinks, to refer only to the hospital material in large cities. It certainly does not apply to the population at large. It would be much nearer the truth, he is convinced, to say that about 50 per cent. of all adults have or have had some tuberculous lesion.

99. **Tendency to Ptosis and Shape of the Body.**—Lennhoff states that the distance between the neck and the symphysis, divided by the waist measure and multiplied by 100, to eliminate fractions, gives an index which is useful in studying the causes for visceral ptosis, predisposition to tuberculosis, etc. The range is between 60 and 115. The higher the index the greater the tendency to visceral ptosis, but the shape of the body alone is not enough to cause the ptosis. He gives a number of illustrations of modern and antique sculptors' models, with the index for each. The Venus of Milo has an index of 61, the Capitoline Venus 64, the Esquiline Venus 68; the index for twenty-four healthy young Samoan women ranged from 66 to 91, while for the contemporaneous sculptors' models it varied between 75 and 81.

Deutsche medizinische Wochenschrift, Berlin

March 4, XXXV, No. 9, pp. 377-424

102 Chronic Catarrh of Upper Air Passages. (Behandlung des chronischen Katarrhs der oberen Luftwege.) A. Hartmann.
103 *Serodiagnosis of Syphilis. F. Lesser. Id. (Klinische Verwertung der Wassermannschen Reaktion.) A. Blaschko.
104 Antitrypsin Test in Anemia. (Die Kachexiereaktion in Vergleich zum Hämoglobingehalt und zu den Formelementen des Blutes bei Anämien und deren Beeinflussung durch [illegible] Arsenwasser.) F. Brenner.
105 Et [illegible] (Zur Entstehung der Wurmfort- [illegible] Haeberlin.
106 Two Cases of Angioma of the Face or "Elephantiasis mollis angiectodes." (Zwei Blutgefässgeschwülste des Kopfes.) A. Siegmund.
107 Examination of the Lungs in Apical Tuberculosis. (Zur Untersuchung der Lungen bei Spitzentuberculose.) G. Richter.

103. **Serodiagnosis of Syphilis.**—Lesser has applied the Wassermann test in more than 2,000 cases of syphilis and in hundreds of controls. He tabulates the findings under various headings, calling attention to the 100 per cent. of positive reactions in his 62 cases of progressive paralysis, and the change from positive to negative findings under energetic mercurial treatment while this never occurred under treatment with atoxyl. He obtained a positive response to the test in only 56 per cent. of his 61 cases of tabes; the syphilis itself may have long since been completely cured before the tabes develops, although the syphilis is the source of the process in the meninges which entails secondary degeneration of the nerve tracts with tabes as the outcome. One of the most interesting points learned in this research is that treatment must be more intense than is at present customary in order to transform the positive response to the test into a negative. The transformation of positive into negative findings was obtained only in 35 per cent. under ordinary dosage, and in a number of cases in which the reaction had become very faint under this dosage it had become positive again when the test was applied a few weeks later. He asserts that it is necessary to continue treatment until the hemolysis in the test occurs promptly; as long as it is sluggish, treatment is required. He was never able to transform a positive into a negative reaction in children with inherited syphilis, and alcohol seems to interfere in the same way with the transformation of positive into negative findings. He succeeded in some cases in obtaining this transformation under potassium iodid. The proportion of positive responses obtained in the cases with primary sore was 69 per cent.; in the early phase with symptoms, 91 per cent.; without symptoms, 67 per cent.; in the tertiary phase with symptoms, 90 per cent.; without symptoms, 46 per cent.; in tabes, 56 per cent., and in paralysis 100 per cent. In reference to the question whether a positive response indicates that the patient has syphilis or merely has had it at some time, he points to the remarkable correspondence between the positive findings with the serum test in 46 per cent. of the syphilitics in the tertiary stage and the positive pathologic anatomic findings in 49 per cent. of all the tertiary syphilitic cadavers examined at the Moabite hospital during a period of several years. The positive response becomes weaker and weaker under specific treatment, but gradually increases again as treatment is discontinued, to be again attenuated by resumption of the treatment. This certainly seems to indicate that some agent, susceptible to the influence of mercury and iodin, is at work. He has also encountered six cases and Fleischmann three in which syphilitics presented no symptoms and the serum test was also negative, but the recurrence of manifestations of the syphilis was accompanied by positive findings with the Wassermann test. Still more instructive are cases like one reported in which on mere suspicion of syphilis specific treatment had been instituted three years before. On the basis of the positive response to the serum test another course was given, during which a typical syphilide developed. In another case treatment was advised on the basis of the positive findings with the test, and when the patient returned to commence the course, a few weeks later, he presented a number of typical syphilides on the arm, forehead and back. Lesser regards these last cases as supplying the keystone to the structure of the clinical importance of the Wassermann test. In conclusion he shows by his experience that in many cases in which the physician supposed he had given thorough treatment, in reality he had gone only half way to the desired goal. Too much stress has hitherto been laid on the cutaneous manifestations, as they were the only ones accessible. The new test permits insight into the depths.

Blaschko reviews the impressions derived from the test applied about 1,400 times in 1,000 cases. The findings were approximately the same in the syphilitics with and without manifest symptoms, and also in the early and the tertiary stages. He believes in continuing treatment, as a rule, until the reaction becomes negative, and also accepts the dictum that treatment should be instituted—even in the absence of clinical manifestations—whenever a positive response is obtained. This requires a longer course of treatment than those generally in vogue. He adds that the great achievements in medicine during the last few years render it necessary for syphilologists to go over the whole field anew by the light of the new discoveries.

Medizinische Klinik, Berlin

February 28, V, No. 9, pp. 309-342

108 Prevention of "Neglected Transverse Presentations"; Injection of Water to Restore the Fluid after Premature Rupture of Bag of Waters. (Zur Verhütung von "vernachlässigten Querlagen" und über Auffüllung des durch vorzeitigen Blasensprung wasserleer gewordenen Uterus.) H. Peters.
109 The Latest Anatomic Findings in the Heart and their Relation to Pathologic Conditions. (Die neueren anatomischen Befunde am Herzen und ihre Beziehungen zur Herzpathologie.) L. Aschoff. (Commenced in No. 8.)
110 *Advantages of Horseback Riding as an Exercise. (Einfluss des Reitsports auf den menschlichen Organismus.) Pickenbach.
111 *Relations between Skin and Kidney Affections. (Beziehungen zwischen Haut- und Nierenkrankheiten.) E. Nohl.
112 Latest Methods of Visual Inspection of Posterior Urethra. (Die neueren Methoden der hinteren Urethroskopie.) G. Praetorius.

113 Dangers of Electric Connection with the Ground. (Gefahren des Erdschlusses.) A. Schnee.
114 Determination of Viscosity of Blood. (Bestimmung der Viskosität des Blutes mittels der Apparate von Determann und Hess, nebst Beschreibung eines eigenen Viskosimeters.) E. Münzer and F. Bloch.
115 Tuberculin and Allied Remedies in Tuberculosis. F. Köhler and R. Lenzmann.

110. **Horseback Riding as an Exercise.**—Pickenbach lauds the advantages of horseback exercise. It acts on nearly every muscle in the body while the mind is interested and refreshed. He repeats in effect Oliver Wendell Holmes' remark that saddle leather would be preferable to sole leather if it were not for the financial objection, but he adds that those who can easily afford this form of exercise are the very ones who need it most and who suffer for the lack of some such stimulation of the oxidation processes. Automobiling is not a sport or exercise, he continues; it does not strengthen the body but has a debilitating effect while ruining the nervous system and injuring the general health. It can not be compared to horseback riding, much less take the place of the latter. He insists that riding outranks all other forms of physical exercise and should be regarded as a direct therapeutic measure for many habitual morbid conditions, especially for the debilitated, the neurasthenic and those with a tendency to melancholia.

111. **Relations Between the Kidneys and Skin Diseases.**—Nohl relates three cases of a peculiar infectious process localized mainly in the skin and kidneys. In the first and second cases the annoying skin affection occupied the center of the stage until examination of the urine revealed the superior importance of the kidney process, which in one case proved fatal. The urinary findings in these three cases emphasize the importance of systematic examination of the urine as a routine measure in erythema exudativum. He has observed a few cases of cystitis and pyelitis accompanying a simple rash in children.

Mitteilungen aus den Grenzgebieten der Med. und Chir., Jena

XIX, No. 5, pp. 737-890. Last indexed March 27, p. 1072

116 *Experimental Research on Spinal Anesthesia. (Experimentelle Untersuchungen zur Spinalanalgesie.) H. Klose and H. Vogt.
117 *Spinal Anesthesia. (Rückenmarksanästhesie.) L. Rehn.
118 Formation of Agglutinins and Hemolysins under Action of Induced Hyperemia. (Ueber Immunkörperbildung unter der Einwirkung der Stauung nach Bier.) C. Kleineberger.
119 *Healing of Tuberculous Process in Lung under Therapeutic Pneumothorax. (Heilung des chronischen tuberkulösen Empyems mittelst künstlichen Pneumothorax.) K. F. Wenckebach.
120 Experiments with Exclusion of Small and Large Intestine. (Versuche über Ausschaltung von Dünn- und Dickdarm.) A. Albu.
121 *Importance of Gastric Hypersecretion from Surgical Standpoint. (Bedeutung des Magensaftflusses für den Chirurgen.) W. Anschütz.

116. **Local Effect of Spinal Anesthesia on Nerve Elements.**—The various findings in tests on 103 rabbits and dogs are reported in detail as observed during and after spinal anesthesia. They were similar to those reported by Spielmeyer last year from research on animals and from postmortem examination of thirteen individuals soon after stovain spinal anesthesia. In one case the stovain was regarded as the direct cause of death. In the experiments of Klose and Vogt the motor cells in some cases showed chromolysis or swelling of the cells with achromatosis—changes resembling closely those observed after severing of the axis cylinder. The cells affected were almost invariably the large motor cells of the anterior and lateral horns. When physiologic salt solution was injected, in place of the anesthetic, no such changes in the cells were apparent, demonstrating that they were not of mechanical origin. Direct injection of the anesthetics into the substance of the cord further confirmed their toxic action. The changes found were evidently reparable in most cases, but a few were encountered in which the nuclei showed such pronounced changes that restitution was manifestly out of the question. None of these changes developed during the first few days after the anesthesia; they were not found until after a few days or weeks. The literature on the subject is reviewed but only the articles of van Lier, Wossidlo and Spielmeyer dwell predominantly on the direct action of the anesthetic on the nerve elements.

117. **Spinal Anesthesia.**—Rehn's article was one of the addresses at the recent International Surgical Congress; he reviews the history and statistics of the method of spinal anesthesia first systematically used by Bier nine years ago. The experimental work reported in the preceding article was done in his clinic to throw further light on the circulation in the cerebrospinal fluid and absorption of drugs from the subarachnoid space and their action on the nerve fibers, and whether the spinal cord is more sensitive to spinal injection of an anesthetic in diabetes, tabes, suppurations, cachexia, etc. His conclusions are that spinal anesthesia is by no means an absolutely harmless measure. Individual differences are uncommonly far-reaching and important. In the elderly, the physiologic hardening of the tissues renders them less sensitive, so that spinal anesthesia is more dangerous the younger the individual. If there is anywhere a place of minor resistance—even latent—the danger is immeasurably enhanced. He summarizes the details of nine cases of severe collapse—one fatal—from Körte's service and three from Brentano's service, with also one fatality. In his own service there were two fatalities in 300 cases. He adds in conclusion that surgeons generally agree in regarding high anesthesia as dangerous and that it is best not to seek to realize it. Also that there is little prospect of localizing the action of the anesthetic in the subarachnoid space; further that spinal anesthesia is not to be recommended for the young, but the changes of age increase the tolerance so that this technic is indicated more for the elderly. It is strictly contraindicated by suppuration, advanced arteriosclerosis, disturbances in the central nervous system, and possibly, also, by widespread tuberculosis. The spinal technic should never be applied when local anesthesia or the first whiffs of ether would have sufficed. Rehn adds that Bier's new intravenous method will certainly limit still further the field of spinal anesthesia. To obtain a correct judgment of this technic a collective inquiry and statistics to include all countries are urgently required. These statistics should include all the circumstances which might prove of importance, even the so-called harmless by-effects.

119. **Treatment of Chronic Tuberculous Empyema by Artificial Pneumothorax.**—Wenckebach states that two out of the three cases reported display the remarkable benefit that may be derived from the simple measure of evacuating the pus and introducing air into the closed chest. The patients were in a threatening condition when he aspirated the pus in amounts up to 2 liters. The rubber tube through which the fluid was aspirated was closed with a stop-cock; the tube was plugged with sterile cotton, the stop-cock opened and air allowed to enter the chest. The patients breathed with a sigh of relief as the oppression and pain ceased. The puncture hole was then closed. The absorption of the air left a partial vacuum and the negative pressure resulting was sufficient to draw out the lung so that it expanded finally and the patients were practically cured. He commends this simple technic to every physician as often an effectual means of treating chronic tuberculous empyema, transforming the pyothorax into a pyopneumothorax, repeating the injection of air at intervals of from three to six weeks. By the end of eleven weeks in his first case there was no further trace of either the pyothorax or pneumothorax, as also after fifteen months in the other case. Air answers the purpose just as well as oxygen, and there is no necessity for complicated apparatus or a mutilating operation. In the third case the results were less favorable, and the experience with this case indicates that success depends on the lung being in contact at some point with the chest wall. He discusses in conclusion other conditions in which this technic might be applied; it seems to promise good results in chronic serous pleurisy and in protracted acute empyema under open treatment. It seems evident that if the wound were closed repeated puncture with admission of air would hasten the healing.

121. **Importance of Gastric Hypersecretion from the Surgical Standpoint.**—Anschütz discusses the influence on operations of chronic gastrosuccorrhea with motor insufficiency, reporting four extreme cases and two of less intensity. Chronic hypersecretion without motor insufficiency is very rare. A gastroenterostomy can be recommended to patients who suffer from frequent recurring disturbances notwithstanding extreme care in the diet and it should not be deferred too long. The acute form of gastric hypersecretion, especially with periodical or intermittent symptoms, is of nervous origin in most cases. In acute dilatation of the stomach with intense hypersecretion a simple gastrostomy may give relief when all other measures fail; the indications are the same as for enterostomy in ileus. In one such case reported, this alone undoubtedly saved the patient. Hypersecretion injures further the already damaged function and deserves the attention of surgeons, especially in severe motor insufficiency and in acute or postoperative stomach disturbances. If excessive secretion is superposed on stenosis of the pylorus, the indications may be more radical than for the motor insufficiency alone. The details of nine of ten cases of hypersecretion interesting the surgeon are given in full.

Monatsschrift für Geburtshülfe und Gynäkologie, Berlin

February, XXXIX, No. 2, pp. 141-264

122 *Tabes Dorsalis in Women during Childbearing Period. (Tabes dorsalis im [illegible] Frau.) M. Penkert.
123 Injuries of [illegible] Operations. (Darmverletzunge [illegible] erationen.) A. Barth.
124 Intracellular Streptococci in Puncture Fluid. (Ueber einen seltenen Befund von intrazellulären Streptokokkenketten im Spinalpunktat.) E. Sachs.
125 *Experimental Study of Treatment of Puerperal Fevers. (Zur Behandlung des Puerperalfiebers.) W. Zangemeister.
126 Indications for Operation in Chronic Inflammatory Affections of the Ovaries and Fallopian Tubes. L. Prochownick.
127 Unusual Metastases of Uterine Carcinoma, in Muscles, Ureters, Glands, and Mediastinum. H. Offergeld.

122. **Tabes During the Childbearing Age.**—Penkert has found eight cases on record of pregnancy in women with tabes, mostly in an advanced phase, and has encountered a case in his own practice. His patient was a i-para of 27, free from acquired syphilis but with a possible paternal heredity. After the commencement of the pregnancy lancinating pains recurred regularly every two or four weeks, followed by ecchymoses on the legs and intense gastric crises. The pupil and knee reflexes were abolished. Penkert declares that every case of vomiting spells recurring at intervals of two, three or four weeks suggests possible tabes, and the physician should be very cautious about advising interruption of a pregnancy on this account as the uncontrollable vomiting is liable to continue afterward. In his case the distressing vomiting was the most prominent symptom and seemed to be ordinary hyperemesis gravidarum in a nervous hysterical woman. But hysteria could be excluded and the persisting healthy aspect in spite of the recurring vomiting suggested its special nature. Gastric crises have been noted in nearly 50 per cent. of the cases of tabes in women on record. The absolute absence of pains during the childbirth confirms the assumption that the most important nerves for the genitalia are the uterine paracervical and paravaginal ganglia. These autonomous ganglia do not atrophy in tabes and other affections of the spinal cord, and thus the functioning of the uterus is not interfered with. The pregnancy does not have an unfavorable influence on the tabes, and consequently there is no necessity for artificially terminating it. Some recent theses have reported experiences which show that the children born of tabetic mothers are apparently healthy and develop normally.

125. **Treatment of Puerperal Fever.**—Zangemeister thinks that the principle of drainage should be applied to the puerperal as to any other surgical wound. He has cured mice—which are peculiarly susceptible to streptococcus infection—by prompt removal of the focus in an infection otherwise inevitably fatal in two or three days. By increasing the resistive power by injection of antistreptococcus serum, the removal of the focus proved successful even at a much later period. In case of puerperal peritonitis, good results may follow repeated evacuation of the pus from the abdominal cavity, not attempting continuous drainage. His research has shown the advantages of puncturing the abdomen at the first signs of diffuse peritonitis and rinsing out the abdominal cavity with several liters of warm salt solution, similar to lavage of the stomach or bladder, concluded by pouring into the abdominal cavity a pint of salt solution containing from 0.5 to 1 per cent. nuclein or a solution of adrenalin. He remarks that the estimation of the efficacy of any drug is particularly difficult in puerperal fever owing to its erratic course. "Brilliant successes" have been reported in puerperal fever with remedies which time has shown later to be absolutely worthless. No medicinal preparation should be tried on man, he reaffirms, until after extensive tests on animals.

Münchener medizinische Wochenschrift

March 2, LVI, No. 9, pp. 433-488

128 Manifestations of Phosphorus Poisoning. (Vorgänge der Zelldegeneration, der Entzündung und Neubildung bei den verschiedenen Arten der Phosphorvergiftung.) E. Harnack.
129 *Behavior of Heart and Lungs After Abdominal Operations. (Verhalten der Lungen und des Herzens nach abdominellen Eingriffen.) A. v. Lichtenberg and L. Müller.
130 Tubercle Bacilli in Cheesy-Chalky Glands. (Gehalt käsigkreidiger Lymphdrüsen an Tuberkelbazillen.) L. Weiss.
131 Lymph Follicles in Bone Marrow of Children. (Lymphfollikel im kindlichen Knochenmarke.) C. Oehme.
132 *Frequency of Tuberculosis in Children. (Die Tuberkulose- [illegible] Kindesalter.) F. Hamburger and R. Monti.
133 [illegible] ieitis. O. Klauber.
134 [illegible] Tests of Hearing and Deafmutism. F. Wanner.
135 Pubiotomy. (Beitrag zur Hebosteotomie.) H. Völker.

129. **Behavior of Lungs and Heart After Abdominal Operations.**—A recent compilation by Lichtenberg shows that complications on the part of the lungs were responsible for the fatalities after operation on the stomach in 29 per cent.; after operations on the biliary passages in 15 per cent.; in 25 per cent. after herniotomies, in 44 per cent. after operations for goiter, and in 20 per cent. after gynecologic operations. In order to understand the reasons for this he has been making a special study of the condition of the heart and lungs before operations and at various intervals afterward. The findings in 100 cases are tabulated under different headings. They show that postoperative complications on the part of the lungs are far more common than is generally recognized. It is almost certain that many a slight, brief increase in temperature in the first few days after aseptic operations is the work of these occult pulmonary complications. Physical signs of these pulmonary complications are evident as early as the second, third or fourth day; they do not amount to pneumonia but rather provide the soil on which pneumonia develops or they may retrogress entirely in a few days without inconveniencing the patient to any appreciable extent. His series included operations under chloroform, ether or both, local anesthesia and spinal anesthesia, but he never found evidence that any special mode of anesthesia had more influence on the development of postoperative pulmonary complications than the others. His experience confirms the extreme rarity of pneumonia due directly to the inhaled anesthetic; an embolic process is evidently responsible for the postoperative pulmonary complications in the vast majority of cases, but a hypostatic origin must be accepted in a few isolated instances. Pronounced heart disease seems to be less important as a factor than comparatively slight changes in the vascular system and myocardium, and these deserve more attention from this point of view. He adds that the difference in the outline of the heart during inspiration and expiration becomes somewhat modified in the presence of these occult pulmonary complications. The changes in the pulse curve are also important from the standpoint of therapeutics to tide the patient past the danger point, as this curve allows oversight of the condition of the organs of circulation.

132. **Frequency of Tuberculosis in Children.**—Hamburger and Monti give the tabulated findings of tuberculin tests applied to 509 children under treatment in the public hospitals for scarlet fever, diphtheria, typhoid, meningitis or trauma. The Pirquet cutaneous test was applied first; in

case of a negative response 0.1 or 1 mg. tuberculin was injected subcutaneously. Positive reactions were obtained in 271 children, and the proportion of positive responses increased from 0 per cent. at the age of 2 to 51 per cent. at 6; 85 per cent. at 10, and from 93 to 95 per cent. between 11 and 14. The cutaneous test was negative in a number of cases in which the subcutaneous test later induced a positive reaction. In every case with a positive reaction that came to autopsy, some tuberculous focus was discovered, although none of the affections for which the children were being treated had any connection with tuberculosis.

Therapie der Gegenwart, Berlin

March, L, No. 3, pp. 121-168

136 Arteriosclerosis in Light of Experimental Research. C. Benda.
137 *Pneumonia in Children. (Kinderpneumonia.) A. Baginsky. Commenced in No. 2.
138 *Dependence of Disease on Economic Conditions. (Abhängigkeit der Krankheiten von ökonomischen Verhältnissen.) F. von den Velden.
139 *Importance of Appetizers. (Grundsätze für den Genuss der Genussmittel.) W. Sternberg.
140 Treatment of Genu Valgum. G. Müller.
141 Pantoscopic Spectacles for the Elderly. (Korrektion der Alterssichtigkeit durch pantoskopische Augengläser.) E. A. Heimann.

137. Pneumonia in Children.—Baginsky refers to acute fibrinous pneumonia in which the task of the physician is mainly to watch over the curative efforts of Nature, restraining them within due bounds and guiding them in proper paths. In this form of pneumonia the dyspnea and pains are the expression of direct intoxication. Under the influence of the fever, antitoxins are generated which neutralize the toxins; the fever must only be kept from excess. This is accomplished by different physicians in the ways which experience and observation have taught them to be most efficient. Baginsky's own method is to refrain from drugs; a temperature of 104 to 106 F. for a few days is not alarming in a child, but the pain and dyspnea should be relieved, and for this he has found a local ice bag over the affected lung beneficial. A second ice bag is applied to the head. Only when delirium, stupor and continuous excessively high temperatures demand further measures he orders cold packs or cooling baths once or twice a day. He lays great stress on a nourishing diet, milk, eggs, bouillon and a little wine. He regards wine as the best tonic and stimulant that can be given to children, not on account of its alcohol content but for its effect as a whole. Under these measures pneumonia has come to be the most successfully treated of all the infectious diseases in his experience. In exceptional cases digitalis, camphor or saline infusion may be necessary. If the children are very anemic he also gives iron; in the progressive form he finds potassium iodid very useful. The elasticity of the heart in childhood obviates the danger of overfilling of the right heart with blood, and consequently there is less tendency to edema of the lungs which is so prevalent in pneumonia in adults. In the very rare cases in which this sequence is observed, prompt venesection may prove a life-saving measure. To do the right thing at the right time and not to do too much is the task of the physician in acute fibrinous pneumonia. In bronchopneumonia the indications are entirely different. Active measures are required to strengthen the patient and to equalize the temperature in the internal organs and the skin. During convalescence from both forms, special care must be taken to keep dust, smoke and foul air out of the lungs. He does not advocate measures at any time to "toughen" children, and regards them as actually dangerous after pneumonia.

138. Dependence of Disease on Economic Conditions.—Velden has been studying the statistics of the Gotha life insurance company and has unearthed some interesting facts. The mortality of the comparatively poor and very rich and all stages between is shown to be about the same, but tuberculosis and pneumonia seem to prevail almost exclusively among the less well-to-do, while the wealthier insured supply by far the largest contingent of mental affections, diabetes and acute articular rheumatism, kidney diseases and affections of the circulatory system. The findings in regard to acute articular rheumatism seem to indicate that internal causes are the main factors—possibly congenital, possibly a lack of proportion between the food and the oxidations—instead of infection. Its prevalence among the well-to-do in these tables thus throws some light on its etiology. The table shows that every station in life has its injurious influences so that there is more of an equality in the destinies of men than is generally accepted. The figures related include 6,393 insured for the smaller amounts, 9,329 for larger and 4,258 for the largest sums.

139. Importance of Appetizers.—Sternberg's article is an energetic protest against the serious mistake of regarding food exclusively from the standpoint of the chemist. This one-sided view leaves out of account all the important reflex processes started by the senses of smell and taste. Drugs and food, he declares, should be regarded from entirely different standpoints. Food that pleases the palate stimulates the appetite. Not one of the artificial foods on the market is able to arouse the appetite and make the patient want to eat. These artificial foods should, therefore, be rejected on principle. If they were really so valuable a mode of nourishment as the manufacturers proclaim, they would be better adapted for the well than for the sick, as the well do not need so much to have their appetite coaxed. He adds that all drugs almost without exception, destroy the appetite. Among the numerous preparations there is scarcely one which stimulates the appetite; many of them even cause nausea and vomiting or at least depress the appetite. He adds that these views have the most important consequences for medical practice; the general practitioner obtains entirely new standpoints in regard to all substances used as additions to food, not in themselves essential, such as condiments, tobacco, spirits, etc. The question of abstinence for the sick and the well thus assumes an entirely different aspect.

Wiener klinische Wochenschrift, Vienna

March 4, XXII, No. 9, pp. 293-326

142 *Hyperemia of Liver During Menstruation. (Zur Frage der Beziehungen zwischen Leber und Drüsen mit innerer Sekretion.) F. Chvostek.
143 *Functional Diagnosis of Pancreatic Affections. O. Schwarz.
144 Treatment of Tuberculosis. A. Krokiewicz.
145 *Etiology of Dental Periostitis. B. Mayrhofer.

142. Menstrual Hyperemia of the Liver.—Chvostek has been having a large number of women examined in the course of research on the relations between the liver and glands with an internal secretion. He found in all but three of thirty women thus examined that the liver increased in size during the menstrual period, the lower margin of the liver showing an increase in size amounting to one or two fingerbreadths or even more. There was nothing in these cases to indicate pathologic conditions in the liver, kidneys or circulatory organs. In one case urobilin appeared in the urine during the menses although it vanished at other times, and the liver and intestines seemed apparently normal. These facts establish, he thinks, a close connection between the liver and the genital glands; probably the hyperemia in the liver is the work of the internal secretion of the ovaries at this time. This close connection between the liver and the genital glands throws light on the toxicoses of pregnant women, although mechanical or metabolic factors may cooperate in the general effect produced. The findings of the research reported also make more comprehensible the abnormal course of liver affections during menstruation and pregnancy.

143. Functional Diagnosis of Pancreatic Affections.—Schwarz reports from von Eiselsberg's clinic at Vienna about two dozen cases of various pancreatic affections in which comparative tests of the functioning of the pancreas were made with Sahli's glutoid test, Schlecht's trypsin test and Cammidge's reaction. He was impressed with the important information to be obtained by means of these tests for the diagnosis of direct or reflex influencing of the functioning of the pancreas. The Cammidge test proved especially *reliable* as the findings were confirmed by the ultimate course of the cases. His experience suggests that the Cammidge reaction is the expression of some disturbance in the functioning of the pancreas in respect to carbohydrate metabolism, as the findings were invariably positive when the clinical and experimental findings revealed such. He comments further on the frequency of a positive reaction with a circumscribed tumor in the pancreas, the rarity of true diabetes in such cases and the negative findings after successful extirpation of the lesion in the pancreas. The experiences related confirm the influence of the nerves on the functioning of the pancreas; even small circumscribed foci are liable to injure the functioning of the organ by reflex action. In one case, the Cammidge reaction was very pronounced, although the patient was apparently perfectly well; an operation had been done eighteen months before for incarcerated hernia in which nearly six feet of small intestine had been removed (5½ meters).

145. **Etiology of Dental Periostitis.**—Mayrhofer has found that streptococci can develop in the depths of a tooth when a layer of cotton and the filling above are sterile and airtight. He has traced the source of reinfection in these cases to streptococci lurking in the depths of the tubules of the dentine of the root. They escape in these sheltered nooks the action of even the most vigorous antiseptic cleansing of the cavity. He found them in more than 200 cases. Staphylococci seem to be unable to proliferate in these minute tubules as they grow in bunches, but the streptococci, proliferating in lengthwise chains, find conditions favorable for their development. They may lie latent for months and years until aroused by some lowering of the general resistive vitality from chilling or other cause. He suggests further the possibility that these streptococci lurking in the depths of the tubules in the dentine may be responsible at times for the development of puerperal fever, erysipelas, pyemia and sepsis, as well as of alveolar pyorrhea and bone processes. His article is based on research in 240 cases of gangrene of the pulp.

Gazzetta degli Ospedali e delle Cliniche, Milan

February 14, XXX, No. 19, pp. 193-208

146 *Syphilitic Rabbit Cornea as Antigen for Serum Diagnosis of Syphilis. (Cornea sifilitica del coniglio nella reazione del [illegible]) [illegible] Simonelli.
147 *[illegible] and Syphilis. (Il morbus maculosus [illegible]igine sifilitica.) G. Paronzini.

February 16, No. 20, pp. 209-216

148 *Familial Pleurisy or Myxedema? (Una famiglia di pleuritici o di mixedematosi?) E. Leonardi.

February 21, No. 22, pp. 225-240

149 Cocain Spinal Anesthesia. (Sulla rachicocainizzazione.) E. Morganti.

146. **Rabbit Cornea as Antigen for Serodiagnosis of Syphilis.**—Inoculation of the cornea of rabbits with syphilitic material results in the production of a typical parenchymatous keratitis, and Simonelli states that the extract of the infected cornea has the same specific action as material from syphilitic fetuses in applying the Wassermann test. He cites a dozen clinical cases in which serodiagnosis with the extract of syphilitic rabbit corneas, fresh or desiccated, gave results identical in every respect with those obtained with antigens from ordinary sources. The desiccated extract has proved fully as effectual as the fresh in his experience, and he advocates the use of the rabbit cornea as a readily accessible and reliable means of obtaining the antigen for the test.

147. **Syphilitic Origin of Hemorrhagic Purpura.**—Paronzini relates the details of a case of Werlhof's disease in a girl of 8 whose foster-mother had proved to be syphilitic. The child was given specific treatment at the age of 4 on account of ulceration of the gums, and when the purpura developed four years later it also yielded to vigorous external mercurial treatment with potassium iodid internally.

148. **Familial Pleurisy or Myxedema.**—Leonardi queries whether to refer to a pleuritic or myxedematous origin the familial tendency described. The pleura filled up at times with an effusion requiring several tappings, but it was never accompanied by fever or pain and it left no after-effects. Three of the sons at puberty and the mother at the menopause and one sister presented this syndrome and it appeared again in the second generation. None of the members of the family has developed tuberculosis. They all live in a deep narrow mountain valley and are pale, with a slightly jaundiced complexion and puffy eyelids. He is inclined to ascribe the tendency to defective thyroid functioning.

Books Received

All books received are acknowledged in this column and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. A selection will be made for review in the interests of our readers and as space permits.

The Problem of Age, Growth, and Death. A Study of Cytomorphosis Based on Lectures at the Lowell Institute, March, 1907. By Charles S. Minot, LL.D., D.Sc., James Stillman Professor of Comparative Anatomy in the Harvard Medical School. Cloth. Pp. 280, with illustrations. Price, $2.50. New York: G. P. Putnam's Sons, 1908.

Manual of Operative Surgery. By John Fairbairn Binnie, A.M., C.M., Professor of Surgery, Kansas State University. Volume I. "Operations on the Head, Neck, Nerves, Trunk, Genito-Urinary System." Fourth Edition. Flexible Leather. Pp. 832, with illustrations. Price, $3.50. Philadelphia: P. Blakiston's Son & Co., 1909.

Manual of Diseases of the Ear. By Thomas Barr, M.D., Lecturer on Diseases of the Ear, Glasgow University, and J. Stoddart Barr, M.B., Ch.B., Assistant to Lecturer on Diseases of the Ear, Glasgow University. Fourth Edition. Cloth. Pp. 477, with illustrations. Price, $4.50. New York: The Macmillan Co., 1909.

The Therapeutics of Radiant Light and Heat and Convective Heat. By William Benham Snow, M.D., Author of "A Manual on Electro-Static Modes of Application, Therapeutics, Radiography, and Radiotherapy." Cloth. Pp. 119. Price, $2. New York: Scientific Authors' Publishing Co., 349 W. 57th St.

A Text-Book of Materia Medica, Pharmacology and Therapeutics. By George F. Butler, A.M., Ph.G., M.D., Professor and Head of the Department of Therapeutics, Chicago College of Medicine and Surgery. Sixth Edition. Cloth. Pp. 708. Price, $4. Philadelphia: W. B. Saunders Co., 1908.

A Text-Book of Medical Chemistry and Toxicology. By James W. Holland, A.M., M.D., Professor of Medical Chemistry and Toxicology, and Dean, Jefferson Medical College, Philadelphia. Second Edition. Cloth. Pp. 635, with illustrations. Price, $3. Philadelphia: W. B. Saunders Co., 1908.

A System of Ophthalmic Therapeutics. Edited and Chiefly Written by Casey A. Wood, M.D., C.M., D.C.L., Late Professor of [illegible] Head of the Department, Northwestern University [illegible] Cloth. Pp. 926, with illustrations. Price, $7. [illegible] Press, 1909.

Refraction and How to Refract. By James Thorington, A.M., M.D., Professor of Diseases of the Eye in the Philadelphia Polyclinic and College for Graduates in Medicine. Fourth Edition. Cloth. Pp. 324, with illustrations. Price, $1.50. Philadelphia: P. Blakiston's Son & Co., 1909.

The Herter Lectures (New York, 1908) on the Fluids of the Body. By Ernest H. Starling, M.D., F.R.C.P., F.R.S., Jodrell Professor of Physiology in the University College, London. Cloth. Pp. 186, with illustrations. Price, $2. Chicago: W. T. Keener & Co., 1909.

Handbuch der Biochemie des Menschen und der Tiere. Herausgegeben von Prof. Dr. Phil. et Med. Carl Oppenheimer, in Berlin. 14th installment. Paper. Pp. 240. Price, 5 marks. Jena: Verlag von Gustav Fischer, 1909.

Primary Studies for Nurses. By Charlotte A. Aikens, Late Director of Sibley Memorial Hospital, Washington, D. C. Cloth. Pp. 435, with illustrations. Price, $1.75. Philadelphia: W. B. Saunders Co., 1909.

Notes and Thoughts from Practice. By W. J. Tyson, M.D., F.R.C.P., F.R.C.S., Hon. Physician, Victoria Hospital, Folkstone. Paper. Pp. 95. Price, 2 shillings. London: John Bale, Sons & Danielsson, 1909.

Epoch-Making Contributions to Medicine, Surgery and the Allied Sciences. Collected by C. N. B. Camac, A.B., M.D. Cloth. Pp. 435, with illustrations. Price, $4. Philadelphia: W. B. Saunders Co., 1909.

Bancroft Training School for Mentally Subnormal Children, Haddonfield, N. J. Manual of the Course of Study. Arranged by Margaret Bancroft and E. A. Farrington, B.S., M.D. Paper. Pp. 120.

Handbook for Attendants on the Insane. Fifth Edition. Published by the Authority of the Medico-Psychological Association. Cloth. Pp. 390. Price, $1. Chicago: W. T. Keener & Co., 1909.

Fourth Annual Report of the Trustees of the Rhode Island State Sanatorium, at Wallace Lake, to the General Assembly at January Session, 1909. Paper. Pp. 90.

An Introduction to the Science of Radio-Activity. By Charles W. Raffety. Cloth. Pp. 208, with illustrations. Price, $1.25. New York: Longmans, Green & Co., 1909.

Verhandlungen der Berliner Medizinischen Gesellschaft, 1908. Band xxxix. Paper. Pp. 505. Berlin: Druck von L. Schumacher, 1909.

Annual Report of the Library Committee of the College of Physicians of Philadelphia, 1908. Paper. Pp. 8.

Twenty-Seventh Annual Report of the State Hospital for the Insane at Warren, Pa. 1908. Paper. Pp. 121.

State of Nevada, Biennial Report of the Orphans' Home Directors, 1907-8. Paper. Pp. 28.

Seventeenth Annual Report of Bethany Home of Rhode Island, 1908. Paper. Pp. 22.

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Address

THE DISCHARGE OF SEWAGE INTO TIDAL WATERS *

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The necessity for taking steps to protect the sanitary condition of tidal waters arises chiefly from the plan, now almost universally followed, of employing water to carry off, through sewers, the excrement of the inhabitants of cities.

Originally intended for storm water only, sewers began to be extensively used for the water carriage of excrement about sixty years ago. At that time, and for years afterward, it was not anticipated that the capacity of rivers and harbors for sewage could be exceeded; the only problem seemed to be how to get the offensive material away from the houses and streets of cities and into natural bodies of water with the least inconvenience and expence.

With the progress of time and the growth of cities the amount of sewage disposed of in this manner has enormously increased. Rivers which once furnished wholesome supplies of drinking water and were a source of pleasure and health have become infested with disease germs and have produced some of the most intense epidemics of modern times. Some streams and tidal estuaries have become so overloaded with filth as to give rise to odors of great offensiveness and extent. In such cases fish life is impossible. The water is blackened and putrid. The paint of ships and buildings is discolored and bubbles of foul gases arise from the liquid, giving it the appearance of effervescence. This is the extremity of sewage pollution, but cases of it are not, unfortunately, difficult to find. The river Thames was in this condition between 1848 and 1855 and again in 1875. The river Seine below Paris is in a similar condition now. The Chicago River, the Buffalo River and the Passaic River are familiar examples in America. Many tidal harbors where sewage is disposed of in quantity are capable of affording an object-lesson of the unpleasant consequences which follow when the capacity of water is overtaxed.

EXAMPLES OF PROTECTED HARBORS

There are several cities in Europe and America which have found it necessary to protect their tidal waters against excessive sewage pollution. This is usually done by the construction of public works to divert and purify the sewage. London partly purifies its sewage with chemicals and ships to sea 7,500 tons of the resulting sludge each day. The city of Glasgow treats its sewage in the same way. Dublin, Belfast and Hamburg all protect their harbors against excessive sewage pollution by public works which have cost large sums of money. In the United States the city of Boston and many municipalities in its vicinity have combined to carry their sewage far out into the harbor in order to prevent excessive pollution near the shores. The city of Providence purifies its sewage after the London principle. Baltimore, the latest American city to adopt a scheme of harbor protection, is constructing an elaborate system of sewage purification, including sedimentation, filtration and probably disinfection.

New York is the largest seaport which has no definite plan or policy with respect to sewage disposal. The liquid wastes of over 6.000,000 people are discharged into New York harbor without any purification or regulation whatever.

Not only are the waters of many of the greatest seaports protected from excessive sewage pollution, but works for purifying sewage or, at least, diverting it from points where it would become a nuisance, are becoming increasingly common for inland cities. Of the twenty-six cities of Europe and America which have populations of over 500,000, about one-half purify their sewage or follow some other carefully devised plan for disposing of it. Of the nine cities of 1,000,000 inhabitants or more, three purify their sewage; one carries it to a distance by an especially built canal and the remainder discharge their sewage into great bodies of water without any plan or concern as to its ultimate fate. Accurate statistics are not available to show how large is the aggregate sum of money invested in all the sewage disposal plants which exist, but some idea of the magnitude of these undertakings can be had from the fact that there are works for the purification of the sewage of not less than 18,000,000 people.

THE SELF-PURIFICATION OF HARBORS

The capacity of a harbor for assimilating sewage without offense varies according to its size and shape and situation with reference to the tidal currents which flow to and from the ocean.

In most harbors there is an oscillation of the main currents which causes floating matter to be carried back and forth on the same path, sometimes for many miles at each tide, before escaping to sea. In the port of London the tidal oscillation often has a range of ten miles or more. It has repeatedly been proved that it takes from twenty-five to seventy days for water to pass from the upper end of London to the North Sea by this course. In Dublin harbor, on the other hand, there are seaward-moving currents which carry the sewage away from the shore toward the Irish Sea at practically all stages of tide. In most instances the oscillating currents have a net seaward gain. This gain results from land water which flows into the harbor from streams near its head.

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* Address delivered before the New York Academy of Medicine, Jan. 7, 1909.

The sewage of some cities, as Boston and Hamburg, for example, is stored in reservoirs and discharged only on outgoing tides. When sewage is discharged on a rising tide the offensive matters are not only apt to be carried toward the land, but they are likely to be deposited on the shores. This is particularly true in long and narrow harbors. As is well understood by rivermen, rising stages of the water carry floating things ashore, falling stages draw them to the middle of streams.

The harbor of New York is peculiar in that it has two ocean entrances. At these entrances the tidal periods are different, high water occurring a little later at Hell Gate than at the Narrows. Owing to this difference, there seems to be a movement of sea water from Long Island Sound through the East River and upper bay southward through the Narrows in excess of the water which flows in the opposite direction. This excess may be very slight, but there is reason to believe that it exists. It is most important to be sure about this matter, for it may be that this harbor has been endowed by Nature with an automatic flushing arrangement which can be turned to good account in keeping the harbor clean. This subject is now being studied by the Metropolitan Sewerage Commission, and a full report on it may be expected within about one year.

In nearly all harbors there are places where the water does not circulate in such a way as to produce a sufficient flushing action, and under these circumstances trouble from sewage pollution often occurs. No better illustration of such conditions can be afforded than those which occur in some parts of the harbor of New York. The Gowanus Canal, Newtown Creek and Passaic River are notorious examples of arms of tidal harbors which are supersaturated with sewage. How to relieve the inhabitants of such districts of these insanitary surroundings without producing evils which will affect still larger numbers of persons is often a very serious problem.

When sewage is discharged into harbor water it flows away in a stream, which is more or less well defined, depending on the clearness and smoothness of the harbor water. Offensive conditions are often produced before assimilation takes place. These offensive conditions include unpleasant odors, discoloration of the water, the production of a greasy film and the appearance of solid matters, such as feces, paper, matches, corks, fruit and vegetable refuse, bread and similar refuse. Some solid matter is deposited, the sedimentation of solids taking place much more rapidly in sea water than in land water. The deposited solids often putrefy and give off large quantities of offensive gases. It is not uncommon to see the water about the docks of the New York metropolitan area effervescing with gas from the sewage pollution.

On the British coast the location of sewer outfalls is marked by flocks of gulls which feed on the scraps of rotting refuse which the sewage contains. In New York City gulls both feast on the sewage of the harbor and visit the reservoir of drinking water in Central Park.

It has been found by experience and experiment that harbor water has a large capacity for inoffensively assimilating sewage, providing most of the suspended solids are first removed and the sewage is added properly. Money considerations usually make it necessary to take this assimilative capacity very carefully into account. Sanitary experts have given much attention to the question of the self-purification of water, and it is not strange that some believe it to be possible to state with exactness how much sewage a given quantity of water can assimilate.

One of the problems which engineers must consider when planning to discharge sewage into a tidal harbor is how to arrange the outfalls so that the sewage will become promptly mixed with the tidal water. It is important that the point of discharge should not be at the shore line, nor so situated that the currents or wind will bring the sewage to the shore. It is equally plain that no sewage should empty into a part of a harbor where there is not a net seaward discharge capable of carrying the refuse away. Discharge only on outgoing currents is less certainly necessary, but is probably wise policy under many circumstances. Very little is known concerning the effect of submerging the outfall to a depth below the surface of a harbor or dividing the discharging sewage into a number of neighboring streams, although it would seem that whatever tends to aid diffusion in this way would be beneficial. Diffusion is at the very heart of the question of utilizing the digestive power of a harbor for sewage.

THE ARTIFICIAL PURIFICATION OF SEWAGE

Engineers are agreed that there is no insuperable difficulty about purifying sewage, except the cost. It would not be beyond the range of practicability to collect all the sewage of New York and its neighboring municipalities, amounting to, perhaps, 500,000,000 gallons per day, and convert it into a harmless and inoffensive liquid. But the expense of building and maintaining the works necessary to accomplish this purpose would be enormous. Fortunately it is not always necessary to collect and purify all the sewage which is produced in the cities bordering on a tidal harbor, even when careful measures of protection are required—it may be enough to purify the discharge of some of the principal sewers. Similarly the highest degree of purification may not be necessary in every case, but only such improvement may be required as will make the sewage harmless when finally discharged into the tidal waters.

Contrary to general belief, the manurial ingredients of sewage can not be recovered in such a way as materially to reduce the expense of handling it. Theoretically the manurial value of sewage is $1 to $1.25 per capita per year, but there seems to be no city in the world which is handling its sewage at a profit. It is true that some large cities, notably Paris and Berlin, utilize their sewage by irrigating farm land with it, but this requires great areas of territory and is profitable only where the soil is suitable and cheap or the sewage is useful for the water which it contains. Some kinds of land are entirely unsuited for this purpose.

A large part of the manurial ingredients can be extracted by passing the sewage through tanks, in which the solid particles can be made to settle out with or without the aid of chemicals. But this process requires the handling of large volumes of a bulky sludge containing 90 to 95 per cent. water. This sludge can not be utilized without drying or pressing, and these procedures are very expensive. If the sewage of New York were treated by precipitation with chemicals, it is estimated that about 14,000 tons of sludge would be produced each day.

The bacterial processes of purifying sewage which have been developed in the last ten years do not aim to recover the fertilizing ingredients. Their sole object is to dispose of the impurities in a harmless and inoffensive manner and with the least expenditure of time and money. Many of these bacterial processes are of much scientific interest. Considerable progress is being made in improving them. Very novel bacterial works for the disposal of sewage are now being constructed at Belfast, where it is expected that a certain amount of the organic matter will, through the action of microorganisms, be driven into the atmosphere in the form of an inert and harmless gas. It is necessary in this case to keep even the usual mineral ingredients of purified sewage out of the harbor as far as practicable, lest they serve as a manure for the excessively luxuriant growth of sea lettuce which, under present conditions, constitute a public nuisance near Belfast.

If sewage is screened and passed through properly constructed settling tanks, the visible particles may all be removed. In connection with this treatment grease may also be extracted from sewage. Screening, settling and grease removing are extensively practiced in Germany, when sewage is discharged into rivers which are not used for drinking purposes. The cost of this work is comparatively small. The benefit, when regarded from the esthetic standpoint, is large. It is estimated that one ton of grease is produced for about every 125 of the population in the course of a year.

THE DANGEROUS POSSIBILITIES OF SEWAGE

If a sample of sewage is collected in a bottle and kept from the air, anaërobic fermentation sets in and offensive gases are produced. These gases are particularly unpleasant if the sewage is first mixed with a little sea water. Anaërobic fermentation is common in the more stagnant parts of tidal harbors. The gases consist largely of imperfectly oxidized sulphur compounds, sulphuretted hydrogen being the most prominent. These gases are disagreeable and nauseating, but are believed to be incapable of producing any specific infective disease.

If the sample of sewage in the bottle is thoroughly and repeatedly aërated it will not produce offensive odors. The organic matters will gradually decompose, but in this case the decomposition is a slow combustion. Oxygen is absorbed and carbon dioxid is produced. Nitrogen compounds are converted into ammonia and this, becoming oxidized, is transformed into nitrous and nitric acids. These acids immediately unite with the alkaline constituents of the water and become resolved into other harmless and inoffensive mineral substances. This process of decomposition is continually proceeding in Nature on land and in water, whether the organic matter which is being decomposed originates from sewage or from other sources. There is nothing offensive to the sense of smell or dangerous to health in this kind of fermentation. It is the best and only way in which sewage should be assimilated by tidal waters.

The capacity of a sewage-polluted harbor to produce disease depends on the chance that pathogenic microbes are present and that these may pass from the water into the bodies of persons susceptible to the diseases of which these microbes are the product. The sewage of a city like New York is always dangerous, for it contains the germs of every infectious disease which occurs there. To take the polluted water which flows about the docks of New York into the mouth, as do thousands who bathe along the built-up waterfront in summer, is obviously dangerous. Fishing where the hands are continuously wet and may carry sewage matters to the mouth is also attended with some risk. The collection of driftwood for fuel also seems to be unsafe, for in this case the filth-impregnated wood is carried into houses.

Bacteriologists have not yet determined how long the various organisms of disease are able to live in tidal water, but a great deal of interesting work has been done in connection with this subject. The most definite results have been obtained in studying the circumstances under which the germs of typhoid fever may persist. The results have not always been in harmony, and it must be remembered that, at best, laboratory conditions can not always be made to represent accurately the conditions of Nature. But, as far as our information goes, it appears that when typhoid germs are mixed with harbor water a rapid reduction in numbers generally occurs at once. At the end of two or three days only a small percentage of the original number of bacteria are present. At the end of about a week a further slight reduction has occurred. Some survive for two or three weeks, and under exceptional circumstances it would seem that the vitality of typhoid germs might persist for months; evidence is on record to show that they have traveled eighty miles or more from their point of origin.

There is believed to be no reduction in the virulence of typhoid germs because of their existence in water. The most resistant survive, and these are apparently well qualified to multiply and produce typhoid in any susceptible person into whose intestinal tract they are taken. It seems a well-established fact that no pathogenic microbes are capable of multiplying in polluted harbor waters under circumstances which commonly exist.

PROBABLE AMOUNT OF DISEASE PRODUCED BY POLLUTED HARBORS

Contrary to what might be expected, there is little statistical evidence to show that a large amount of sickness is produced by polluted harbors. Repeated attempts to collect such evidence have been made, but without success. When the river Thames at London was giving off its most abominable stenches, prior to the construction of the present sewage disposal system, the vital statistics of the city showed no increase in the prevalence of any disease which the sanitarians of that day could ascribe to the odors. Inquiries into the health of wharfmen and boatmen indicated that their health was not visibly affected. When the river Liffey was being described as the most abominable nuisance in Ireland, efforts were made to ascertain the amount of sickness near the waterfront of Dublin, but no excess of illness could be found.

Much of the argument which for centuries taught that epidemic diseases were produced by vapors arising from ill-smelling substances has been shown by the cold light of modern science to have been founded on imperfectly observed facts. Offensive odors may aggravate, if not predispose to infectious disease, but they do not produce them.

The dictum of to-day is that bad smells should be prevented, because they are smells. What is disgusting and revolting to the sight must be kept from view. The higher standards of decency and order which prevail make it unnecessary to prove that insanitary conditions breed pestilence in order to present sufficient reason to abate them.

Failure to discover an increase in specific disease does not, of course, prove that harm is not done to public health by the existence of insanitary conditions. The methods of inquiry employed in such investigations are too crude to detect the whole extent of the injury even if considerable harm is done. Only the most conspicuous evils, such as cases of specific intestinal diseases, are generally accepted as indicating the extent of the consequences. The more subtile effects, such as those which are produced by insufficient air, food, sunlight, exercise and rest, can not so readily be detected, measured and traced; therefore, when they are recorded against insanitary conditions at all, they are generally attributed to them in such a vague, uncertain way as to fail to convey a proper sense of their importance. That a very real impairment of vigor, and consequently health, may occur among persons who are compelled to dwell among insanitary conditions will be freely admitted by all. Disease aside, this impairment of health means impairment of efficiency in the capacity to do work.

The most convincing proof of a connection between polluted harbors and specific disease lies in the results of eating shell-fish. There have been more than enough cases of typhoid fever and gastroenteritis reliably ascribed to the eating of oysters, clams and other shell-fish derived from polluted waters to show the danger in this direction. Shell-fish taken from sewage-polluted water are polluted themselves. They are likely to cause typhoid fever if eaten raw. Cases have been known to arise merely from handling the shells. The total amount of sickness caused by impure shell-fish is not even approximately known. Only some of the most striking and most obvious cases are likely to be traced.

Within the last five years much attention has been directed to the absence of sanitary jurisdiction over the cultivation and handling of shell-fish, with the result that health authorities and others have been moved to abate some of the most dangerous practices. Improvements in the cultivation of shell-fish have been made in Europe and America, but a great deal remains to be done. In some harbors it would appear that the shell-fish industry must be given up. In others a careful management of the sewage will suffice. In view of the enormous value of the shell-fish industries, which now amount in the United States to over 50 per cent. of the total value of our fisheries, it seems incredible that the oystermen, many of whom are intelligent and of ample means, should be willing to continue to grow and handle their shell-fish in an insanitary manner. One would expect them to be the first to take the necessary steps for the protection of their business.

SANITARY JURISDICTION OVER TIDAL HARBORS

The form of sanitary jurisdiction which should be exercised over a tidal harbor must depend on the local circumstances. Over matters which are certainly of public health import, it is obvious that boards of health should have jurisdiction. Where questions affecting public comfort and well-being are alone concerned, some other form of jurisdiction is, at least, equally appropriate. The main authority in charge of the sanitary protection of the Thames is not a public health body. The various royal commissions on sewage disposal of Great Britain have, with one exception, not been health boards.

The various rivers boards of England, which are doing good work for the sanitary protection of watercourses, are committees composed of local authorities and are charged with the special duty of preventing nuisances. The last report of the (temporary) Royal Commission on Sewage Disposal has recommended the creation of a permanent central authority which shall carry on suitable investigations and be ready to give expert advice to local authorities as to methods for the sanitary disposition of sewage.

In Germany the imperial board of health exercises jurisdiction over the streams only in so far as health is surely concerned. The sanitary improvement and protection of the rivers, so that they may be more suitable for the enjoyment and use of the public, devolve on other authorities.

In America, where there is no central health authority, the protection of the watercourses is left to the care of the individual states. Some states require that all plans for sewerage, as well as sewage purification, shall be passed on by the state board of health before they are carried out. American harbors are protected, where any protection exists, chiefly through works constructed by sanitary authorities, such as sewerage commissions, which have no jurisdiction over the matters of public health. The need and nature of such work are often determined by a special board of commissioners. This has been true of Boston and Baltimore. The preparatory investigation now being made to determine how best to protect the sanitary condition of New York harbor has been placed by the State of New York in the hands of a commission of four engineers and one physician, called the Metropolitan Sewerage Commission. The duties of this body are plainly specified in the act of the legislature which brought it into existence (Chapter 639, Laws of 1906, amended by Chapter 422, Laws of 1908).

17 Battery Place.

Original Articles

THE RESULTS OF DRUG TREATMENT IN FIVE HUNDRED CASES OF DELIRIUM TREMENS

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An attempt has been made in this investigation to determine, as well as may be by statistical methods, the relative value of the various drugs commonly used in the treatment of delirium tremens. The conclusions reached as a result of a careful study of 500 cases may be summarized as follows:

1. In incipient cases the patients respond readily to treatment with chloral, ergot, bromids and whiskey, the drugs being mentioned in the order of their value.

2. Delirious patients are very resistant to treatment. In the cases studied the administration of the sedative drugs increased the mortality. This was most evident when scopolamin was used, that drug increasing the mortality 13 per cent. These unsatisfactory results with the sedative drugs were due to the large doses used. It will be shown that small quantities, for example, 15 to 30 grains of chloral in twenty-four hours,

may be given with good results, but that when larger quantities are given the death rate increases with the amount of sedative administered.

3. The only drug which reduced the mortality was ergot. By its use the death rate was decreased 21.6 per cent.

4. When whiskey was given the mortality was increased 1.8 per cent.

The 500 cases which serve as a basis for this paper are those of patients treated at the Cook County Hospital, Chicago, during a period of three years, extending from June, 1905, to August, 1908. This represents only a part of the total number of such cases in the hospital during that period. The cases developing in the hospital while the patients were under treatment for other conditions are not included in this series, because the histories of these cases were filed in the hospital records under the heading of the original maladies and were not readily accessible. The remaining cases, in which mania a potu was the chief evidence of disease, and whose histories were filed under the head of alcoholism, were the ones utilized in compiling the following statistics. It is believed that the relatively uncomplicated nature of these cases makes them particularly suitable for such a study.

It must not be supposed, however, that these 500 cases presented no complications, but rather that the complications were only *of minor importance.* The nature and frequency of the complications can be understood by a glance at Table 1. It will be seen that in a large number of the cases the complications were due to chronic alcoholism, and that serious conditions, like fractures and pneumonia, which are so commonly associated with delirium tremens, are relatively rare in this series of cases.

TABLE 1.—COMPLICATIONS

Complication.	Recovered.	Died.	Complication.	Recovered.	Died.
Acute dilatation of stomach	1	0	Hernia	1	1
Bronchitis	3	0	Hemorrhoids	1	0
Carcinoma	1	0	Infections, cellulitis, etc.	2	9
Cardiospasm	1	0	Influenza	1	0
Catarrhal jaundice	1	0	Morphinism	7	0
Cerebral hemorrhage	1	0	Neuritis	3	1
Cholecystitis	1	0	Nephritis	41	25
Cirrhosis of liver	9	6	Organic heart disease	13	6
Corneal ulcer	1	0	Pleurisy	1	2
Dementia	1	0	Pneumonia	4	10
Dislocations and sprains	1	3	Pregnancy	2	0
Enteritis	1	0	Prolapsed uterus	1	0
Epilepsy	6	2	Pulmonary tubercul*osis*	1	2
Exposure	1	0	Rheumatism	0	3
Fractures	4	9	Tabes dorsalis	2	0
Gastritis	11	0	Varicose veins	2	0
			Venereal diseases	6	0
			Wounds	12	13

In collecting the statistics the original history was examined in each case and the relevant facts transcribed to a library card. Each card was made to show the age and sex of the patient, whether the case was incipient or fully developed, whether it developed from the incipient into the delirious stage in the hospital, and, if so, after how long and under what treatment, and also to show each drug used, with the size and number of the doses, together with the results of the treatment and the complications. The cards could then be sorted and the cases classified according to any one of the points noted.

The cards were first separated into two groups representing, respectively, the *incipient* and the fully-developed cases. The incipient cases were those which showed only insomnia, restlessness and tremor. In the fully developed cases the patients were noisy, delirious, with uncorrected hallucinations. In a number of cases the patients entered the hospital in the incipient stage and later became delirious. These cases enter twice into the statistics—first as incipient, later as developed cases—and, as there were 147 of them, there appear to be 647 cases, instead of 500 represented in Tables 2 and 3.

Table 2 gives in detail the results of treatment by the various drugs in the incipient cases. These results are expressed in terms of the percentage of patients that became delirious. Table 3 shows the results of treatment of the delirious patients, and here the mortality is used as the index. Since the drugs were often used in combination, it was not possible to compare a series in which one drug was used alone with another series in which some other drug was used alone. Accordingly each drug was considered separately, and the series in which it was used compared with the series in which it was not used.

TABLE 2.—INCIPIENT CASES

BROMIDS used in	190 cases, delirium followed in	32.6%
BROMIDS not used in	156 cases, delirium followed in	52.8%
	Difference	20.2%
CHLORAL used in	86 cases, delirium followed in	20.6%
CHLORAL not used in	260 cases, delirium followed in	48.9%
	Difference	28.3%
MORPHIN used in	71 cases, delirium followed in	38.5%
MORPHIN not used in	275 cases, delirium followed in	42.5%
	Difference	4.0%
SCOPOLAMIN used in	39 cases, delirium followed in	36.0%
SCOPOLAMIN not used in	307 cases, delirium followed in	41.5%
	Difference	4.5%
WHISKY used in	110 cases, delirium followed in	28.1%
WHISKY not used in	236 cases, delirium followed in	48.3%
	Difference	20.2%
ERGOT used in	75 cases, delirium followed in	23.6%
ERGOT not used in	271 cases, delirium followed in	46.9%
	Difference	23.3%

TABLE 3.—DELIRIOUS PATIENTS

BROMIDS used in	198 cases, with mortality of	45.5%
BROMIDS not used in	103 cases, with mortality of	40.8%
	Mortality increased	4.7%
CHLORAL used in	145 cases, with mortality of	44.9%
CHLORAL not used in	156 cases, with mortality of	42.9%
	Mortality increased	2.0%
MORPHIN used in	150 cases, with mortality of	43.3%
MORPHIN not used in	151 cases, with mortality of	44.7%
	Mortality decreased	1.4%
SCOPOLAMIN used in	110 cases, with mortality of	50.9%
SCOPOLAMIN not used in	191 cases, with mortality of	37.9%
	Mortality increased	13.0%
WHISKY used in	131 cases, with mortality of	44.7%
WHISKY not used in	170 cases, with mortality of	42.9%
	Mortality increased	1.8%
ERGOT used in	80 cases, with mortality of	30.0%
ERGOT not used in	221 cases, with mortality of	51.6%
	Mortality decreased	21.6%

Among the sedative drugs the bromids were most extensively used in the treatment of these cases. It was customary to give equal parts of sodium, potassium and ammonium bromid in doses of from 10 to 30 grains each, or 30 to 90 grains of the mixture every four hours. Table 3 shows that the bromids were used in 198 cases with delirium, with a mortality of 45.5 per cent., and that in 103 similar cases treated without bromids the death rate was only 40.8 per cent. This increase in the mortality, amounting to 4.7 per cent., was apparently due to the use of bromids. We believe, however, that Table 4 will show that the increased mortality was due to too large doses too frequently repeated, and that smaller quantities do good rather than harm. Better results were obtained with the incipient cases. In the 190 incipient cases in which the patients were treated with bromids, only 32.6 per cent. of the patients became delirious, while of 156 similar cases in which the patients were not so treated 52.8 per cent. of the patients became delirious. This represents a decrease of 20.2 per cent. in the patients developing delirium in the hospital.

Chloral was also extensively used in doses ranging from 10 to 30 grains, often repeated, every four hours, and frequently given in combination with the bromids. By reference to the tables it will be seen that chloral, as administered in these cases, is of no service after active delirium has set in. In fact, it seems actually to have increased the mortality by 2 per cent. It is in the treatment of the incipient cases that the great value of chloral is seen. It reduced the percentage of cases developing delirium in the hospital from 48.9 per cent. to 20.6 per cent., a decrease of 28.3 per cent. Chloral is of more value than bromids in the incipient cases because the patient can be put under its influence in a much shorter time.

Morphin is also practically useless in the cases with delirium, although instead of slightly increasing the mortality, as did chloral and the bromids, it reduced the mortality 1.4 per cent. This is probably to be explained by the fact that morphin was usually ordered in single ¼-grain doses, and thus relatively small quantities were given, while the bromids and chloral were ordered in relatively larger doses, and these were repeated every four hours. Thus in a few days the patient would get enormous quantities of the sedatives. The same reasoning accounts for the poor results in the incipient cases in which morphin reduced by only 4 per cent. the number of patients developing delirium. In these incipient cases the patients should be held steadily under the influence of regularly repeated doses of the sedatives.

Scopolamin was also given in single doses of 1/100 to 1/50 of a grain, and the series in which it was given, like the morphin series, illustrates the futility of single doses of sedatives in controlling the incipient cases. It decreased the number of patients developing delirium by only 4.5 per cent. But, unlike morphin, scopolamin is extremely dangerous in the delirious cases. Even when its use was as restricted and as carefully regulated as it was in this series of cases, it increased the mortality 13 per cent.

It will be seen that in this series the sedative drugs increased rather than decreased the mortality. The question naturally arises whether the sedatives are harmful to the delirious patients when given in any quantity whatsoever, or whether the bad results in this series of cases was not due to the use of too large amounts.

In order to answer this question, the cases were again tabulated according to the total quantity of sedatives given. An arbitrary unit for twenty-four hours was chosen, as 60 grains of chloral, and this unit was considered as equivalent to 3 drams of bromids, 3/50 of a grain of scopolamin, 1½ grains of morphin, 60 grains of veronal, 6 drams of paraldehyd. 2 drams of sulphonal, 3 fluidrams of tincture of hyoscyamus, or 6 grains of codein. Thus whatever sedative or combination of sedatives was used in any case the total amount given could be calculated and reduced to terms of the unit chosen. In only 285 of the cases with delirium were the data complete enough for this analysis. For each of these cases the number of units of sedative was calculated and the cases arranged according to the amount given. Table 4 shows the effects of various doses of sedatives:

Table 4.—*Results of Various Doses of the Sedative Drugs*

Units for 24 Hours.	Equivalent in Chloral. Grs.	Number of Patients. Recovered.	Died.	Total.	Death Rate. %
0	0	10	14	24	58
¼	15	43	12	55	21.8
½	30	13	5	18	27.7
¾	45	11	5	16	31.2
1	60	29	22	51	43.1
2	120	21	28	49	57.1
3	180	13	27	40	67.5
4	240	12	20	32	62.5

It will be seen from Table 4 that when no sedative was used the mortality was high (58 per cent.) and that when small quantities (equivalent to 15 grains of chloral in twenty-four hours) were used the mortality fell to 21.8 per cent., and that the mortality increased rapidly as the dose was increased. The high mortality when no sedative was used is, in part, explained by the fact that a number of patients entered the hospital in a moribund condition and died in a short time, having received only stimulant drugs. I do not think that this accounts for the entire difference between the mortality of those patients who received small doses and the mortality of those who received none; for the majority of the patients who received no sedatives were treated on the homeopathic side of the hospital with homeopathic remedies. It seems clear, therefore, that small doses of sedatives equivalent to 15 grains of chloral in twenty-four hours favorably influence the course of the disease. It is certain that larger doses have a very unfavorable influence.

Whiskey was used rather extensively in these cases, notwithstanding the fact that its use is condemned by the majority of writers. It seems to have been of decided value in the incipient cases, lowering the percentage of patients becoming delirious by 20.2 per cent. In the cases with delirium the mortality was raised 1.8 per cent.

The drugs so far mentioned have increased the mortality of the delirious patients, except morphin, and its effect was practically negative. We come now to a drug which has produced a marked decrease in the mortality. This drug is ergot. It was usually given in the form of the fluidextract, in dram doses, repeated every four hours, and often in combination with whiskey. In those cases in which ergot was used the mortality was only 30 per cent., while among those patients treated without ergot it was 51.6 per cent. This is a reduction of 21.6 per cent. in the mortality. This result is striking when considered with reference to the uselessness of other drugs. Ergot is likewise of value in the incipient cases, the percentage of patients developing delirium being reduced 23.3 per cent. by its use.

The importance of ergot in the treatment of these patients may justify a little digression from the strictly statistical line of argument. Its use in the Cook County Hospital in the treatment of delirium tremens dates from the spring of 1907, and so favorable have been the results that it is now generally employed for that purpose by the resident staff of the institution. The beneficial results of its administration has seemed to me to be clearly demonstrated in those cases which have been under my care. It seems not so much to shorten the attack as to render the delirium much quieter, thus preventing death from exhaustion before the natural crisis arrives. Any attempt to explain its influence would be pure speculation. It is possible that it may act by decreasing the cerebral hyperemia. By equalizing the circulation it may tend to prevent the edema of the brain and meninges, "wet brain," so frequently seen at autopsies on cases of delirium tremens.

Stomachics were used extensively, but were not taken into account in these statistics.

Stimulants were used very little, alcohol alone being consistently used. Other stimulants were used only when the patient was in a moribund condition. It would be interesting to know what would be the effect of a systematic use of digitalis, caffein and strychnin throughout the course of the disease, but the series of cases under discussion does not furnish the necessary data.

It will be obvious from a study of the accompanying tables that drugs are not of such value in the treatment of these patients that other therapeutic measures can be neglected. This is especially true of the wildly delirious patients, for whom much more can be done by nursing than by drugs. But I can not here do more than emphasize the importance of proper methods of restraint, frequent administration of liquids and the use of sedative baths.

In the incipient cases much can be done with drugs. Large doses of the sedatives should be given, especially chloral and bromids, and these should be repeated every four hours and kept up for several days after all signs of the disease have disappeared. Whiskey should be given regularly. Ergot is also of value and may be given as the fluidextract, or in cases complicated with gastritis the aseptic preparations of ergot may be given hypodermically. In the hospital, dram doses of the fluidextract were given every four hours for a week and more without any bad effects. If a standardized preparation of the fluidextract were used, smaller doses would probably be equally effective. Stomachics are often indicated, especially capsicum. Stimulants, aside from alcohol, are unnecessary except in cases showing cardiac incompetence.

In the cases with delirium care must be taken not to overdose the patients. Sedatives may be used with care, not more than 30 grains of chloral or its equivalent in other sedatives being given in twenty-four hours. Scopolamin is dangerous and whiskey useless. Ergot seems to have been of the greatest value and certainly deserves an extended trial. It is a question whether stimulants should be given to all delirious patients, but when there are signs of failing heart action, of developing "serous meningitis," or when the patient is passing from delirium to stupor and coma, heart stimulants should be given hypodermically.

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TUBERCULOSIS

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It seems strange that after the many years of study devoted to tuberculosis by the medical profession, in medical schools and text-books on the practice of medicine, the fact that this is a general constitutional disease is apparently lost sight of; a good definition or a description of tuberculosis as such is rarely, if ever, seen.

Text-books all define pulmonary tuberculosis and fully describe its etiology, pathology, symptoms and treatment; casually mention in this connection the possibility of secondary infection of other organs and tissues, but describe these secondary manifestations of a general systemic infection under chapters devoted to such special organs or tissues. That this is illogical must be apparent to every thinking professional man.

Allow any patient afflicted with tuberculosis to go his way untreated and, sooner or later, secondary involvements are certain to manifest themselves. I have never seen at postmortem a single instance in which some such secondary lesion was not found in some organ or tissue, even though it had not been manifest clinically during life. I regret that this is not confined to untreated cases, for owing to our lack of knowledge in the past of the treatment of tuberculosis many patients have followed this course.

In all text-books this disease is usually defined and described along the lines laid down in a well-known text-book on the practice of medicine (edition of 1907), for the author of which I entertain the greatest respect and admiration, in which tuberculosis is defined in the following manner:

"Tuberculosis is a general or local infectious inflammatory disease, the result of the implantation and proliferation of the tubercle bacillus."

The first chapter considers etiology and discusses the tubercle. The disease is then classified under two divisions, acute and chronic tuberculosis, and these are subdivided as follows:

II.—Acute tuberculosis.
    1. Diffuse general tuberculosis (acute milliary).
    2. Pulmonary form of acute tuberculosis.
    3. Tuberculous meningitis.
III.—Chronic tuberculosis.
    1. Pulmonary tuberculosis.
        (a) Chronic ulcerative phthisis.
        (b) Fibroid phthisis.

The next chapter is headed:

IV.—Tuberculosis of lymphatic glands.
V.—Tuberculosis of the serous membranes.
    (a) Tuberculosis of the pleura.
    (b) Tuberculosis of the peritoneum.
VI.—Tuberculosis of the genitourinary organs.
VII.—Tuberculosis of the mammary glands.
VIII.—Tuberculosis of the heart and blood vessels.

Each of the chief foregoing chapters treats of the subject as if it were a distinct disease, giving definition, etiology, pathology, symptomatology, treatment and prophylaxis.

Among the chapters under the heading of tuberculosis we find no mention of that frequent pathologic condition, tuberculous laryngitis, but this important feature is considered under diseases of the larynx. Tuberculous infections of the serous membranes, and of the genitourinary tract, are considered as coming under the domain of the surgeon. Tuberculosis of the bones and of the joints is not mentioned, evidently being left to the text-books on surgery. Tuberculosis of the skin (lupus) is briefly mentioned in connection with the description of the tubercle bacillus.

I believe that, from our knowledge of tuberculosis, the definition above mentioned is manifestly wrong; tuberculosis is pre-eminently a disease of systemic infection, is constitutional in its character, and is never a local condition.

The classification into acute and chronic forms is not borne out by the facts; tuberculosis is never an acute process, but is necessarily a chronic condition pathologically: at times it does run a rapidly fatal course, but this can not possibly cause it to be classified as an acute form of the disease, but rather, I would suggest, as a fulminating or pernicious type.

Under the heading "Chronic Tuberculosis" we find pulmonary tuberculosis, considered under the subdivisions, chronic ulcerative phthisis and fibroid phthisis; these are merely unfavorable or favorable phases of the same morbid process occurring in different patients, due probably, first, to a difference in the virility of the infecting organisms; second, to the greater or less resisting power of the respective patients (acquired or inherited); third, to environment and social condition; and, fourth, to the personal habits of the individual.

We have recognized four avenues through which the infecting organism may invade the human body, viz.: *through the intestines, through the tonsils, by inspiration, and through wounds of the skin.*

Heretofore it has been considered that the disease was the outcome of the implantation of the bacillus in these organs or tissues, and that it produced a pathologic change in the tissues so invaded, eventually giving rise to systemic infection.

For a long time I have believed that this view is incorrect[1] and that the primary lesion is seldom, if ever, produced in this way, but that the bacilli so introduced into the tissues first find their way into the blood or lymph, and here develop and multiply (period of incubation), eventually selecting the least resistant tissue, in which the primary pathologic lesion of tuberculosis is developed (incipient tuberculosis).

From this initial lesion the well-known pathologic and clinical features of the disease extend, and may eventually give rise to evidences of most profound systemic infection, and an increasing area of local involvement around the primary lesion, and in many instances (always so in advanced cases), of more or less numerous secondary involvements of other organs and tissues.

The theory that the above views are correct is amply substantiated by the work of Lustgarten and others, who found in the blood and lymph of syphilitics (evidently complicated by tuberculosis) a bacillus morphologically identical with and having the same staining characteristics as the tubercle bacillus, which at the time they thought to be the specific organism of syphilis, but which view, considering our present knowledge of the *Treponema pallidum,* was incorrect. The Lustgarten bacillus could not possibly have been the smegma bacillus, for this organism has never been found in the blood or lymph.

Having eliminated the possibility of the Lustgarten bacillus being either the specific organism of syphilis, or the smegma bacillus, the only probable acid-fast bacillus left for consideration is the tubercle bacillus, which I am convinced is identical with that found by Lustgarten and his followers.

The recent work of Rosenberger[2] is the strongest possible evidence of the correctness of the views which I have held and advanced from time to time. Clinical statistics are sufficient evidence of the fact that the primary lesion of tuberculosis is most often found in the right pulmonary apex, and though this primary lesion may occur in any organ or tissue, I am strongly inclined to the belief that, having its beginning as a purely general systemic infection, it makes its first pathologic changes manifest in the lungs with such frequency as to enable us to exclude primary tuberculosis from any other organ or tissue. In the event of tuberculosis being clinically manifested in any tissue or organ other than the lungs, a careful examination of these organs by a competent physical diagnostician will usually demonstrate its presence in these organs.

Should this not be the case, I believe that the primary lesion was in the lungs but has healed, leaving behind no local evidence of its former presence.

The terms pulmonary tuberculosis, or tuberculosis of any other organ or tissue, are misnomers and are fundamentally wrong, because they are applied to diseases which do not exist in themselves, but are only local pathologic exhibitions of a constitutional or general systemic infection.

The following definition and classification, though necessarily faulty, I believe will fairly describe tuberculosis as we now know it:

Tuberculosis is a chronic, constitutional, infectious granulomatous disease, produced by the tubercle bacillus, characterized pathologically by round-celled infiltration of the organs or tissues, and symptomatically by more or less evidence of systemic infection associated with symptoms relative to and characteristic of an inflammatory process in the organs or tissues locally involved.

CLASSIFICATION

Etiology: Described
Invasion: Avenues of, described.
Pathology: Described.
Stages: Incubation, incipient, moderately advanced, advanced.
Types: Latent, chronic, fulminating or pernicious.

SECONDARY MANIFESTATIONS DESCRIBED

The stage of incubation is that period between the invasion of the bacillus and the development of the primary pathologic lesion. It is of indefinite duration, and probably produces a rapid pulse as the only symptom.

The *incipient stage immediately follows* the development of the primary lesion. There are symptoms of mild systemic infection associated with slight evidences of localized tissue involvement. The primary lesion is a tubercle, which may appear in any organ or tissue in which the infecting organism finds lodgment and a favorable field for growth. *In most instances this is in* pulmonary tissue (which is least resistant) and most frequently the right apex.

The moderately advanced stage is that in which the symptoms of systemic infection and of the local manifestations of the disease are more marked, giving evidences of increased area involved in the organ or tissue primarily *affected,* or of *autoinfection of some* other organ or tissue.

In the advanced stage there is evidence of profound systemic infection, with marked local involvement of one or more organs or tissues.

TREATMENT

From a year's experience with the administration of mercury by deep muscular injections associated with the general treatment advocated *for this disease,* I again assert the specific nature of mercury in relation to tuberculosis, and in support of this *I submit the following* statistics. (See next page.)

There were 3 *additional deaths* in the hospital during the year, 2 from typhoid and 1 following operation for appendicitis. Four of the 16 who died had typhoid in

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[1] Annual Report of the U. S. Naval Hospital, Las Animas, Colorado, for 1908; The Journal A. M. A., Nov. 28, 1908.

[2] Am. Jour. Med. Sc., February, 1909.

August, and their deaths were undoubtedly indirectly due to this disease.

	No. of Patients Who Have Remained in Hospital Two or More Months.	Those Who Voluntarily Took the Mercury Treatment.	Those Who Preferred the Routine Treatment Solely.
Cured	8	7	1
Marked improvement	43	43	0
Improved	16	14	2
Slight improvement	17	10	7
Stationary	19	0	19
Failed	42	4	38
Died	16	5	11
Total number	161	83	78

Of those cured, 87.5 per cent. took mercury treatment; 12.5 per cent. took routine treatment.

Of those showing marked improvement, 100 per cent. took mercury treatment; none took routine treatment.

Of those improved, 87.5 per cent. took mercury treatment; 12.5 per cent. took routine treatment.

Of those slightly improved, 58.82 per cent. took mercury treatment; 41.18 per cent. took routine treatment.

Of those remaining stationary, none took mercury treatment; 100 took routine treatment.

Of those who failed, 9.52 per cent. took mercury treatment; 90.48 per cent. took routine treatment.

Of those who died, 31.2 per cent. took mercury treatment; 68.8 per cent. took routine treatment.

Combining the items cured, marked improvement, improved and slightly improved, under the heading improved; stationary as such, and combining the items failed and died under the heading failed, the following percentages pertain:

Of the 83 patients on mercury, 89.16 per cent. improved; none stationary; 10.84 per cent. failed.

Of the 78 patients on routine treatment, 12.82 per cent. improved; 24.36 per cent. remained stationary; 62.82 failed.

The above patients are classed as follows:

Incipients (first stage)	1
Moderately advanced (second stage)	59
Advanced (third stage)	101
Total number	161

In the above cases the following secondary tuberculous involvements have been diagnosed clinically:

Brain, 1; larynx, 16 (13 ulcerative and 3 infiltrated); larynx and pharynx (ulcerative), 3; intestines, 9; stomach, 1; genitourinary tract, 3; general glandular infection, 4; ischiorectal fistula, 6; bone infection, 3.

At postmortem in 19 cases tuberculosis of various organs and tissues have been found as follows:

Intestines, 13; left kidney, 9; right kidney, 6; spleen, 7; liver, 4; pancreas, 0; mesenteric glands, 14; heart, 1; left lung, 19; right lung, 19; larynx, 7.

Of the complications existing in these 161 cases, the following were found:

Cardiac hypertrophy, 1; mitral regurgitation, 3; tricuspid stenosis, 3; pulmonary stenosis, 2; arteriosclerosis, 5; chronic passive congestion of liver and spleen, 16—of the liver 19 and of the spleen 15; hypertrophic pharyngitis, 1; glaucoma, 1; exophthalmic goiter, 1; malaria, 3; appendicitis, 1; syphilis, 8; displaced kidney, 1; typhoid in 25 cases.

Since November, 1908, in this hospital we have been administering mercury in gradually increasing doses until the therapeutic limit is reached, after having established the maximum dose, it is then divided by two and the injections continued on this dose. During the intervals between injections the use of potassium iodid has been discontinued.

This procedure has increased the efficiency of the treatment in a decided manner.

In addition to the cures reported up to Dec. 31, 1908, there are now three officers and two enlisted men ready for duty, and about six additional men who will probably be ready for duty in from four to six weeks.

U. S. Naval Hospital.

MEDICAL EDUCATION

A PLEA FOR THE DEVELOPMENT OF LEADERS

GRAHAM LUSK, Ph.D., Sc.D., F.R.S.E.
NEW YORK

It is related that an American officer, who was visiting St. Petersburg, asked the Russian officer by whom he was being conducted through the grounds of the palace why a certain sentinel, who was pacing up and down in the middle of the courtyard, should have been stationed in so unusual a place. The Russian was unable to answer, but promised to investigate. This led to the discovery that sixty years before, one of the little princesses had been walking in the courtyard with her father in the spring of the year and had found a snowdrop growing in the middle of the yard. She expressed a desire that no one pick it, and her father therefore ordered a sentinel to be placed on duty to protect the snowdrop. The order had never been rescinded, and for sixty years a guard had been pacing up and down in this position.

So it is in our hospitals; we find the Old Guard pacing up and down in defense of traditional snowdrops whose value neither they nor any one else are able adequately to explain.

Take, for example, the rotation in service. What would have been thought if Dr. Curtis, Dr. Austin Flint, Sr., and I had regularly exchanged laboratories after a service of four months each? You would have said that the scientific men had gone crazy, and you would have been right. There must be pride in one's own scientific habitat if there is to be success. Take another abuse, that of holding a hospital position and never visiting the hospital, but appointing some dependent to do it for one during the period of his good behavior. It is as though I still maintained the power of appointment to the chair of physiology at the Yale Medical School, where I was once professor. If I had such power, and with increasing age became more and more sensitive regarding any proposition to curtail it, and if by degrees I developed an egotism bordering on paranoia, you would then have in me as true an obstacle to proper progress as now abides in the Old Guard still marching up and down in the middle of the hospital grounds protecting the abuses of the past.

A well-known architect tells me that people from other parts of the country who come to New York return to their homes convinced that the architecture of residential Fifth Avenue represents the greatest existing achievements. We all know that it only requires visits to Oxford and Cambridge in England, to the Louvre and Notre Dame in Paris, to the palaces of the Italian nobility in Genoa, Venice, Florence and Rome to realize that Fifth Avenue represents architectural insanity.

If one is to understand one's own failings it will not do to limit one's horizon. It is necessary to travel. If one visits England one finds there is little improvement on our own medical methods. The same thing is true of France. If one passes to Germany, however, one finds there a set of medical men who have no counterpart in this country. Take Friedrich Müller, professor of medicine at the University of Munich as an example. Müller was trained in problems of metabolism in Voit's physiologic laboratory. He then went to Berlin as assistant of the celebrated Gerhardt. He there accomplished work with Zuntz concerning the metabolism of professional fasters. He came into intimate contact with Emil Fischer, the world's greatest chemist. Passing to Marburg as professor of medicine, he became associated with Kossel, the physiologic chemist, and Hans Meyer, the pharmacologist. He was then called to Basel, where the breadth of his knowledge and the glow of his enthusiasm roused and dominated the group of able young men who there surrounded him. He was offered the chair of medicine in Munich, till then held by the great von Ziemssen. Later came an offer to take von Leyden's place in Berlin, but this was declined. Here one sees the lesson of how a struggling young privat-docent on small salary rises through the laboratories and his personal ability to a position of dominating power.

Von Noorden has attained his position through laboratory work of the most valuable kind, and he ranks as a master in his knowledge of the world's literature.

Minkowski, once a pupil of Schmiedeberg, and now professor of medicine at Greifswald, has by laboratory methods brought to light many secrets of gout and diabetes.

Professor Krehl of Heidelberg is another high product of German culture. He, too, refused an offer to take von Leyden's place in Berlin, and in recognition of this the Grand Duke of Baden-Baden, from his privy purse, gave him 250,000 marks ($60,000) to spend as he saw fit.

We can only mention the names of Kraus, His, Magnus-Levy, and Moritz to further emphasize the members of this class of magnificent men whose counterparts do not exist in this country.

When I have spoken with distinguished and powerful clinicians about imitating the German methods, I have always been told that that kind of thing was impossible here. The attitude has always been one of *non possemus*.

But why can it not be done? The impossibility can be due only to one of three possible reasons: One is that we are all dollar-chasers; the second, that we are intellectually deficient; the third, that our system is rotten.

One finds that there are dollar-chasers in Germany also. As regards comparative intellectuality, Professor Voit once said to me, "*Ein Amerikaner kann ja alles machen*," and I believe it. The truth of the whole matter is that the system is rotten and reeking and cries out for drastic reformation.

The development of American surgery has been dependent on the efficiency of the anatomic laboratories.

The development of American medicine can come only through men who have a knowledge of modern chemistry, physiology, pharmacology and pathology; and medicine should be taught by men who have keen personal interest and personal first-hand information concerning these fundamentals on which medical science is based.

Where are such men? Aye, there is the trouble. You have not a great medical clinic because you have not properly educated men, and you have not properly educated men because you have not a great clinic. But there are young men here to-night who could develop the work, if they had the chance. Without referring to any one in this audience, I may mention the names of Christian A. Herter and David L. Edsall as being men who have had the training suited to the development of a great clinic, if the system of the hospitals was modeled on a rational basis.

A scheme for the redemption of New York from reproach is this: Raise a fund of $500,000. Pay the professor of medicine half the income, or $10,000 a year, in return for which he shall spend half his day from 9 in the morning to 1 o'clock instructing students, making rounds in the hospital and supervising research work. He should have under him two assistants at $2,500 per annum, who should be permanent resident internes of the hospital and men who can grow to be professors of medicine. The $5,000 income remaining should be used for the expenses of research at the discretion of the professor.

But, you say, $10,000 is a large salary. Yes, but you are paying for a big man. The first year I taught at the Yale Medical School, eighteen years ago, the total budget for the year was $10,000. But here we are parochial again. If we pass to Germany once more, we find that the great clinical positions carry $10,000 as a yearly income for similar work, and Osler received $10,000 in Baltimore. It costs $10,000 annually to heat and light the Anatomic Institute in Munich, a building larger than all the buildings of the Johns Hopkins Medical School combined.

We must get away from this idea of thinking that a scientific man should be able to get along on the salary of a chauffeur.

I am not at all sure that I have carried conviction into the minds of many who are present here to-night. But that I can not expect. Changes are rarely brought about through great popular uprisings. Take, for example, the introduction of pharmacology into the medical schools of New York. There was no demand for it on the part of the physicians, or on the part of any faculty, but Dr. Wallace was brought to New York by a fund which was raised by Dr. Herter, Dr. Dunham and one other. And Wallace trained Richards, who carried on the work at Columbia, and shortly Hatcher was appointed at Cornell.

Transformations are not brought about by the power of the mob, but by the power of the individual.

I have tried to raise this $500,000. I have approached Mr. Carnegie and Mrs. Sage, and both refused to see me. But some time, some day, some man who has the power to raise the money and the intelligence to use it rightly will be able to confer the untold blessings on this community which would follow the establishment of a chair of medicine for the training of physicians in an atmosphere of developing research.

And, finally, when we consider medical education we should put the thought of our personal benefit in the background. We are dealing not with ourselves. We are dealing with the students who represent what is beyond. We must remember that for a little while into our hands has been entrusted the welfare of the future.

Throat Examination in Infants.—K. H. Goldstone emphasizes the importance of taking a culture from the throat of any infant with a dry metallic cough and a slight rise in temperature. Laryngeal diphtheria, he asserts, is much more common than is generally supposed.—*Jour. Med. Soc. of New Jersey*, February.

A STUDY OF THE BLOOD AFTER SPLENECTOMY FOLLOWING TRAUMA

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ALBANY, N. Y.

The aim of this paper is not to enter exhaustively on the proved or problematic relations of the spleen to the various blood elements either during embryologic life or during extrauterine existence under normal or pathologic hemic conditions; but rather to point out as concisely as possible the variation, or lack of variation, from normal, as found in a series of twenty-six complete blood examinations in a case of splenectomy following traumatic rupture of that organ. The cause for the splenectomy, trauma, afforded an excellent opportunity to observe what effect the removal of a spleen hitherto healthy would have on the elements of a blood unaffected by any hematopoietic disease.

The examinations, made during a busy surgical service, were made at first every day, later every other day, then every third day, each time as nearly at 8 p. m. as was possible. The patient left the hospital and the city on Sept. 3, 1907, but came back for observation on October 22 of the same year, when the last examination was made. In the estimation of the hemoglobin the Tallquist method was employed; in the differential count of the leucocytes 500 cells were examined. Wright's stain was used for microscopic examination.

BLOOD COUNT SHOWING VARIATIONS AFTER SPLENECTOMY

Date.	Red Corpuscles.	Hem. %	Color Index.	White Corpuscles.	Polynuc. Leucocytes (Neutroph.) %	Small Ly'p's. %	Large Ly'p's. %	Transitionals %	Large Monos. %	Eosinophiles. %	Eosinophiles. %	Temperature at.	Pulse.	Corrected Color Index.
July 16.......	5,250,000	70	0.66 +	28,320	86.0	8.4	3.6	1.4	0.6	..	..	101.4	140	0.93 +
July 17.......	3,030,000	70	1.1 +	23,333	87.4	6.2	4.8	0.8	0.8	..	..	100.2	100	1.58 +
July 18.......	3,460,000	70	1.0 +	18,600	81.6	12.4	4.6	1.0	..	0.4	..	100	84	1.40 +
July 19.......	3,575,000	70	0.98 +	16,500	84.0	8.4	5.8	0.2	..	1.6	..	100	90	1.34 +
July 20.......	3,560,000	70	0.98 +	17,800	71.0	16.0	8.2	..	..	3.8	..	100.6	100	1.35 +
July 21.......	3,610,000	70	0.96 +	17,600	70.2	13.0	8.4	2.8	1.8	3.8	..	100.2	88	1.32 +
July 22.......	3,705,000	70	0.93 +	19,811	63.4	25.0	6.2	1.0	0.6	3.8	..	100.2	88	1.29 +
July 24.......	3,800,000	75	0.98 +	16,200	58.4	24.6	7.8	3.4	3.4	2.4	..	99	76	1.34 +
July 26.......	3,820,000	75	0.98 +	24,100	69.2	13.0	9.6	1.6	2.6	4.0	..	99	78	1.34 +
July 28.......	2,980,000	75	1.27 +	16,600	69.4	19.2	8.2	1.0	1.6	0.6	..	100	80	1.72 +
July 30.......	3,235,000	75	1.17 +	20,800	71.0	17.2	9.2	0.6	0.6	1.4	..	100	100	1.60 +
Aug. 1.......	3,950,000	75	0.94 +	12,500	61.4	26.6	7.4	0.4	0.8	3.4	..	99.8	98	1.31 +
Aug. 3.......	4,520,000	80	0.88 +	14,600	63.6	22.4	5.4	0.8	1.4	4.4	..	99	90	1.22 +
Aug. 5.......	4,525,000	80	0.88 +	16,943	58.4	28.0	6.8	1.0	1.2	4.6	..	98.8	86	1.22 +
Aug. 7.......	5,105,000	80	0.78 +	15,600	42.0	43.6	9.6	0.4	2.6	1.8	..	98.6	86	1.08 +
Aug. 9.......	4,520,000	80	0.88 +	11,000	55.6	31.6	4.2	1.2	1.8	5.6	..	99.4	76	1.22 +
Aug. 11.......	4,860,000	80	0.82 +	15,000	57.2	30.4	4.8	1.8	0.6	5.2	..	99.4	84	1.12 +
Aug. 14.......	4,830,000	80	0.83 +	14,000	52.6	33.0	6.6	0.8	4.0	2.8	0.2	98.8	90	1.13 +
Aug. 17.......	4,850,000	85	0.86 +	20,100	65.8	22.6	6.4	1.4	1.0	2.2	0.6	99.2	78	1.19 +
Aug. 20.......	4,845,000	75	0.77 +	16,200	54.0	35.0	6.0	0.8	1.2	3.0	..	99.4	84	1.05 +
Aug. 23.......	5,840,000	75	0.64 +	10,000	48.6	31.4	10.4	0.4	4.2	4.4	0.6	98.6	84	0.87 +
Aug. 26.......	4,590,000	75	0.81 +	15,200	45.4	43.8	3.4	0.8	2.8	3.6	0.2	98.8	82	1.12 +
Aug. 29.......	5,450,000	75	0.68 +	18,000	49.0	42.6	4.6	0.2	1.8	1.4	0.4	98.8	92	0.93 +
Sept. 1.......	4,290,000	75	0.87 +	12,400	34.2	61.0	3.0	1.2	0.4	0.2	..	98.4	100	1.19 +
Sept. 3.......	5,190,000	75	0.72 +	28,400	78.2	18.0	2.0	0.6	0.8	0.4	..	101	120	0.98 +
Oct. 22.......	3,650,000	75	1.02 +	14,100	53.4	39.0	1.4	3.0	0.6	2.0	0.6	....	...	1.40 +

For the opportunity and permission to follow the blood picture I wish to thank the attending surgeon, Dr. Albert Vander Veer.

HISTORY OF THE CASE (DR. J. N. VANDER VEER)

Patient.—J. X., aged 11, schoolboy, was brought to the Albany Hospital, July 15, 1907, at about 10 a. m. The family history and past history were negative.

Present Illness.—On the afternoon of July 11 the patient while on an outing climbed into a tree and fell about thirty feet to the ground, striking on his abdomen. Although experiencing some pain at this time, he lay on the ground watching the other children play until 5 p. m., when the family returned home. The patient went with them, and seemed to experience only a slight pain in his abdomen. At 8 o'clock that evening his family physician, Dr. Troidle, was called to see him, as the boy was suffering some pain in his abdomen, in the neighborhood of the umbilicus. He had had a good bowel movement. Physical examination at this time proved absolutely negative, as there was no rigidity of the muscles whatsoever, no dulness in the flanks, and a specimen of urine showed no lesion of the genitourinary tract. A mild cathartic was ordered for the patient, and it was suggested that he stay in bed. On the following day he felt well, but on the day after this, the second day following the injury, he complained of some pain in the left flank; there was a slight rigidity of the left hypogastric region and the boy showed some signs of shock. He was seen that afternoon by the attending surgeon, and it was suggested that hot packs be applied, a blood count be made and a careful estimate of his temperature and pulse be kept until the next morning. He grew decidedly worse that night, and the third day following the accident was brought to the hospital, with a tentative diagnosis of internal hemorrhage of some form, presumably of the intestine, for he had had no further bowel movement since the day of the accident. A low enema did not bring forth any results, and percussion at this time over the flanks, especially of the left side, gave dulness. The temperature was slightly subnormal, being 97 F., and the pulse varied from 90 to 100.

Operation.—On entrance to the hospital, as soon as preparation for an abdominal section could be made, the patient was placed on the operating table. The first incision (Dr. Albert Vander Veer) began at the umbilicus and extended downward for a distance of about three inches; some free blood was encountered, and it was then surmised that there was an extensive rupture of some one of the internal organs, presumably the liver or spleen. Examination of the intestines through this incision revealed that they were intact, with no injury whatever, and there were no signs of a peritonitis at this point. The incision was then extended upward around the umbilicus to the ensiform cartilage, when more free blood was encountered, and palpation on the left side showed that there was a rupture of the spleen. The incision was then extended to the left beneath the costal margin and the spleen brought into view, showing a stellate rupture on the internal surface, not large in character, and occupying a space which could easily be covered by a silver dollar. The spleen was quite movable, and it was an easy matter to throw a chromicized catgut ligature around the pedicle and tie it off *en masse.*

The patient recovered nicely from the operation; the drainage-tube which had been placed down on to the pedicle was removed at the end of the fifth day and a small gauze wick substituted. There were no resultant symptoms following the operation. Throughout there was a gradual recovery, save for two instances in which the boy was allowed to partake of food which had been smuggled in by overindulgent relatives. He left the hospital September 3, clinically in excellent condition, and has since (to Nov. 15, 1908) progressed as a normal boy in every respect.

The results of the examination can be seen *in toto* in the tabulations, which show the number of red blood cells; the percentage of hemoglobin; the color indices, first estimated with 100 per cent. hemoglobin and 5,000,000 red cells as a basis, then calculated with 80 *per cent. hemoglobin and 5,500,000* red cells at normal for a boy of 11 years; the total number of leucocytes with the percentage of the various forms, together with the pulse and temperature at the time of the examination.

The first count, taken on the evening of the day of the operation, showed a red-cell count of 5,250,000; the next day it had fallen over 2,000,000. The count then gradually rose until July 28, when there was again a sudden decrease of about 1,000,000 red cells. And so further there were rises and falls of 500,000 to 1,000,000 red cells in two or three days. On August 23 the count reached 5,840,000, the highest noted, only to drop to 4,590,000 on August 26; then it rose and fell with each successive count until, on the last estimation, October 22, the reds numbered only 3,650,000 cells. We have then a lessened number of red corpuscles, with a surprising variability from day to day, a fluctuation that apparently has no connection with the degree of leucocytosis or the temperature.

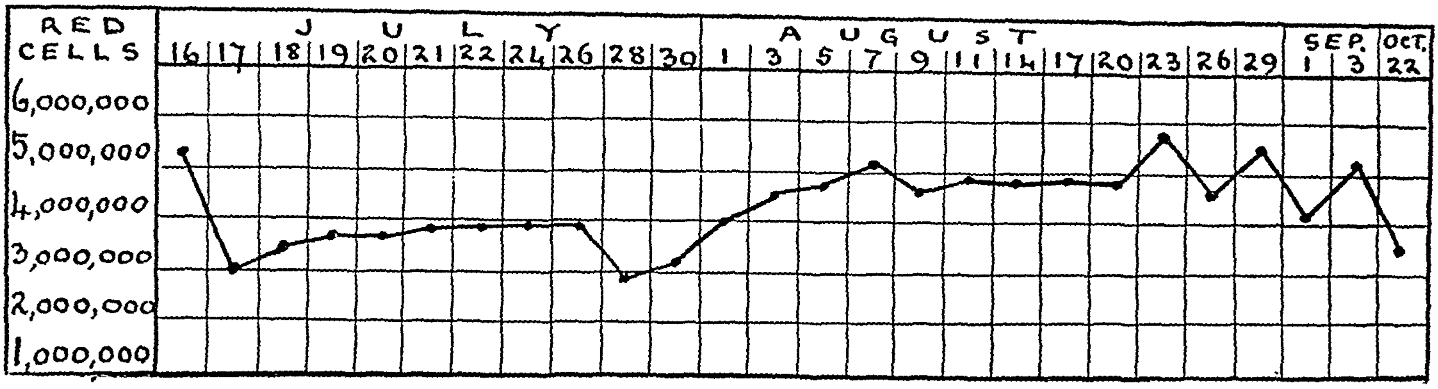

Chart 1.—Showing the great variability in the number of redcorpuscles.

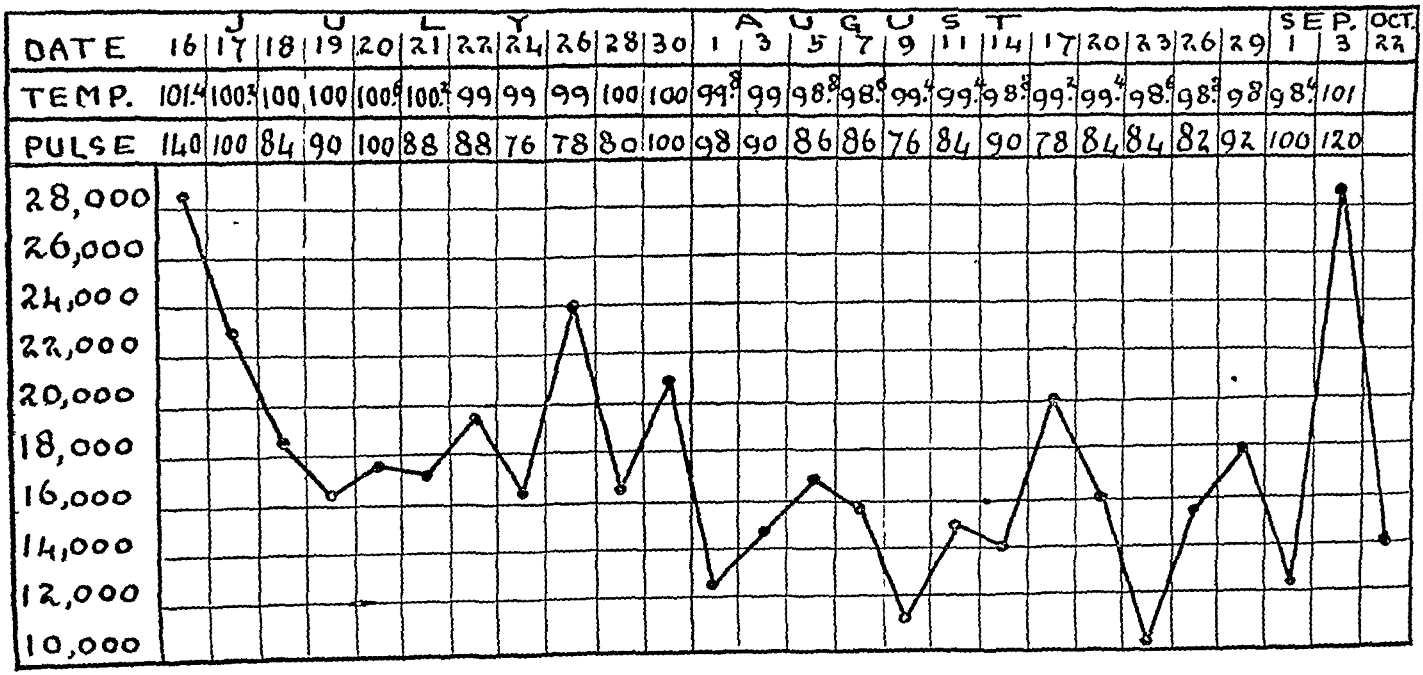

Chart 2.—Showing the variation of the leucocytes.

Microscopically, the red corpuscles showed at no time any evidence of even a moderate anemia. A few poikilocytes were found, but no nucleated forms were seen during the entire period.

In estimating the color index I took at first the normal number of red corpuscles in 1 c.mm. as 5,000,000 and the normal percentage of hemoglobin as 100 per cent. But in a child of 11 the number of red cells is normally higher, 5,500,000, and the percentage of hemoglobin lower, only 80 per cent.[1] If the later figures are normal for a boy of 11, his color index should then be calculated from a basis which is his normal. Even with the first figures as a basis, a variable color index is seen with a few high figures. If the second figures are used as normal, a variable but very high color index is obtained, resembling that found in pernicious anemia; for here the percentage value of the red cells remains, with the exception of three instances, constantly far below the percentage value of the hemoglobin.

Unfortunately, no leucocytic count was made soon after the accident; accordingly we have no means of comparing the degree of leucocytosis previous to the operation with the first count of 28,320 on the evening of the day of the splenectomy. The leucocytosis remained high until August 23, when it was 10,000; it will be noted that it never fell quite to normal, the cause being a slight wound infection. The sudden rise to 20,000 on August 17 to 28,400 on September 3 is to be explained by attacks of acute gastritis due to the eating of an excessive quantity of fruit surreptitiously given to the patient by visitors on the ward. Examining the series of white counts we see that we have variations with the temperature, but that the count is persistently above normal. Even on October 22, when the wound was entirely healed and perfectly closed, the count was yet high, being 14,100.

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[1] Blutkörperchenzählungen und Hæmoglobinbestimmungen bei Kindern, Arch. f. klin. Med., 1880, xlv.

Examining now the different leucocytic elements, it will be noted that at first with a high leucocyte count there is a marked polynuclear neutrophilic hyperleucocytosis with a very evident hypolymphocytosis. But as the case develops, and even in the face of ordinary inflammatory processes, it is seen clearly that the lymphocytes (adding the small and large varieties together) are gradually gaining, until on August 7, with a total count of 15,600 white cells, there are only 42 per cent. of polynuclear neutrophilic leucocytes contrasted with 53.2 per cent. lymphocytes. A hyperlymphocytosis, absolute and relative, is surely developing; on September 1 there are 34.2 per cent. polynuclears and 64 per cent. lymphocytes. Still, when there was a sudden rise in the number of leucocytes, due to an intercurrent affection, as acute gastritis, the proportion of polynuclear leucocytes rises to normal or above, as, for example, on August 17, when the count was 20,000 as compared with 14,000 on August 14, the percentage of neutrophilic polynuclears rose from 52.6 per cent. to 65.8 per cent. Again on September 3 the count was 28,400, rising from 12,400 on September 1: here is a sudden rise in neutrophilic polynuclears from 34.2 per cent. to 78.2 per cent. The last count, 102 days after operation, shows a hyperlymphocytosis of 40.4 per cent., with a high white count of 14,100.

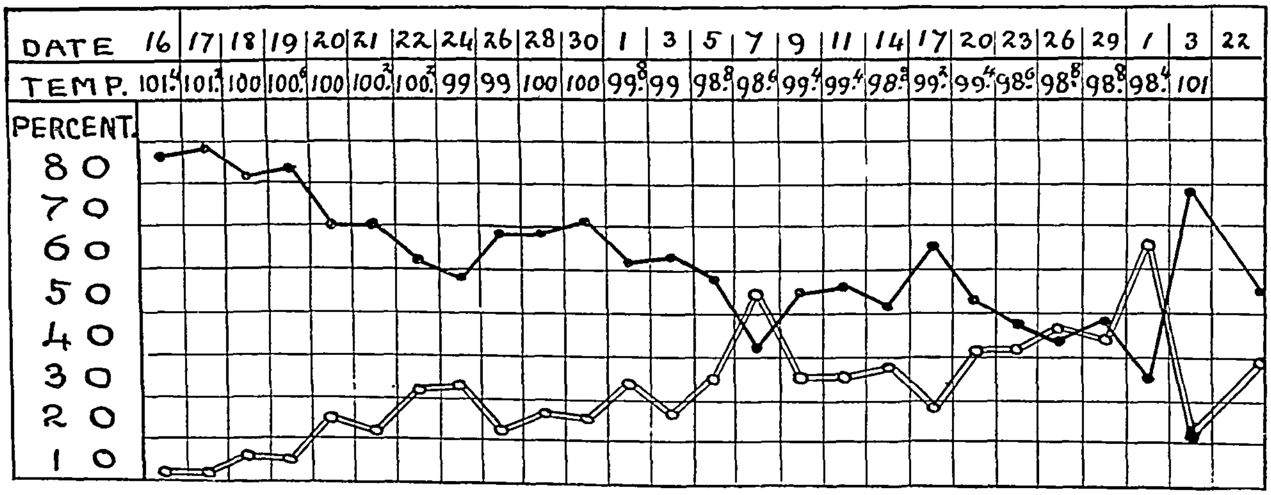

Chart 3.—Showing the variation of the polynuclear neutrophilicleucocytes and of the lymphocytes, and the gradual rise of the latter. Heavy line = polynuclear leucocytes; double line = lymphocytes.

The large lymphocytes are variable and do not bear any fixed relation to the percentage of small forms. They reach some high percentages of 8.4, 9.6 and 10.4 per cent., but at the end gradually diminish until we have only 1.4 per cent. The transitional cells show nothing important. The large mononuclears show increase at times, a phenomenon that occurs after experimental and necessary splenectomy, but at the end are only 0.6 per cent. The eosinophiles show at no time any great increase, the highest percentage being 5.6 per cent.; at the end 2 per cent. Probably if the case could have been followed there would have been found an eosinophilia, which is recognized as a regular occurrence after splenectomy.

As for the microscopic appearance of the various white cells, there were found fairly often large lymphocytes of more than normal size, with no peripheral protoplasm and very deeply basic-staining nuclei; also early in the case there were seen on several occasions small lymphocytes with karyokinetic nuclei.

What, then, has been the effect of the splenectomy on the patient? Subjectively, none: the boy is as lively and as healthy in appearance as any other boy of his age. Objectively, note may be taken of two very interesting results as shown in the blood examination, and perhaps some conclusions may be drawn as to the functions of the spleen, which surely is not an organ absolutely essential to life, as is known both clinically and experimentally.

In the first place, we have the picture of the red corpuscles, which show a most amazing variability, while their hemoglobin content is normal or above normal, and the microscopic appearance shows no sign of even a moderate anemia. What the significance of this combination is must be problematic. We know that the spleen contains much blood pigment and disintegrating red corpuscles, both normally and in hematopoietic diseases. That this "graveyard of the red corpuscles" has some influence, through an internal secretion, on the circulating blood and the producing red bone marrow, whereby it regulates the supply of fresh red corpuscles, as well as the destruction of the old corpuscles in a normal organism, thus forming an equilibrium, is possible. This hypothesis would account for the lack of balance as shown in the variability of the number of red cells, while the hemoglobin remains consistently high to give the necessary supply of oxygen for carrying on the changes of metabolism.

In the next place, a hyperlymphocytosis is recognized after splenectomy following trauma or for experiment, but here, in the face of an ordinary inflammation, calling forth normally a polynuclear neutrophilic hyperleucocytosis, we have a persistently growing hyper lymphocytosis. But—and this is again of interest—when we have an intercurrent affection, as an acute gastritis, the polynuclear neutrophiles again dominate, showing that the ordinary relations between inflammation and polynuclear hyperleucocytosis are still struggling to exist. That the removal of the spleen, which in embryologic life manufactures lymphocytes, gives a stimulus to the lymphatic apparatus of the body and thus causes a hyperlymphocytosis, is probable; that this stimulus is very great is evidenced by the lack of neutrophilic polynuclear hyperleucocytosis where we should naturally expect it; that it is lasting is evidenced by the relative and absolute hyperlymphocytosis seen late after splenectomy.

COMPLEMENTAL OPPOSITION

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I published some time ago a brief article[1] in which was described the method of employing a coordinated contralateral spinal reflex for differentiating between functional and genuine pareses of the lower extremities. This reflex was termed complemental opposition. Dr. Zenner, of Cincinnati, published later an account[2] of some clinical observations on genuine and functional pareses which confirmed my own observations. Dr. Zenner, however, said that he could not confirm my observations on normal subjects in detecting the contralateral opposition when the initial movement involved activation of the extensor iliofemoral muscles of one side; that is, if a patient lying on a couch is instructed to oppose one leg against the surface of the couch, thus activating the extensor iliofemoral muscles of that side, Dr. Zenner does not find complemental opposition manifested in the other thigh and leg.

It is true that the complemental opposition in response to an extensor movement is not as strong and never equals the initial resistance of the other side in vigor, but I always find under such circumstances that there is activation of the contralateral iliofemoral muscles. If the normal person is instructed to oppose one leg firmly against the surface of the couch we shall see either slight flexion of the opposite thigh on the pelvis; or, if the examiner's hand is placed under the tendo Achilles of the opposite side, he will perceive that the leg rests less heavily on the couch during the initial extensor movement and that sometimes the extended thigh and leg are lifted in the air.

Lhermitte[3] gives additional evidence of the constancy of complemental opposition in pareses due to anatomic lesions and also evidence of its modification in functional cases as described in my original publication. He finds also that complemental opposition is modified in paresis of a lower extremity induced during hypnosis, just as it is modified in malingerers and hysterical subjects. But Lhermitte observed in one case of functional spastic paresis of a lower extremity that complemental opposition was present on the opposite side when the patient made an ineffectual attempt to lift the spastic paretic leg off the couch.

He concludes, therefore, that complemental opposition is manifested in spastic functional paresis as it is in paresis due to an anatomic lesion. But this is only one-half the sign, for Lhermitte's own observations are convincing of the functional character of his patient's paresis, viz., when the patient was instructed to lift the sound leg off the couch, then the paretic side exhibited much stronger complemental opposition than was manifested by the sound leg when the patient made an ineffectual attempt to lift the paretic leg. This inconsistency I should accept as quite convincing of the functional character of the paresis.

Since Lhermitte's publication I have not had the opportunity to study a case of functional spastic paresis of the legs, but the same behavior of the reflexes can be demonstrated in any normal person who will undertake to simulate alternately a flaccid and spastic paresis of a lower extremity. For my observations I employed physicians who did not know what manner of reflex was being sought.

When a flaccid paresis of one leg was simulated there was no complemental opposition on the opposite side during the feigned attempt at lifting the flaccid limb. But when a spastic paresis of the iliofemoral muscles was simulated, then complemental opposition was apparent on the two sides respectively, as Lhermitte describes it in his case of spastic functional paresis.

The behavior of the two legs under such conditions I regard as further proof that this synergic movement is purely a coordinated spinal reflex. In the case of spastic functional palsy the patient really activated the flexor iliofemoral muscles in response to the order to lift the leg in the air, and consequently the contralateral reflex in the form of complemental opposition was exhibited. The attempt to lift the leg failed because the patient arrested the reciprocal inhibition of the extensor iliofemoral muscles, but the initial excitation of the flexor iliofemoral muscles was not wanting as a basis for the contralateral reflex movement in the extensor iliofemoral muscles.

This clinical sign is a practical application of the experimental observations on the spinal dog which Sherrington published in his book, "The Integrative Action of the Nervous System." The following description is given of an experiment on a dog whose spinal cord was transected in the upper cervical region: "In the flexion reflex of the hind limb excited by noxious stimuli, e. g., a prick or a Faradic current, the limb itself is drawn up —if weakly, chiefly by flexion at the knee; if strongly, by flexion at the hip as strongly as at the knee. At the same time the crossed hind limb is thrown into action, primarily in extension, but this is soon followed by flexion, and alternating extension and flexion is the characteristic result. The rate of this alternation is about twice a second: that is to say, the foot which has stamped on a thorn is drawn up out of the way of further wounding, and the fellow hind limb runs away, and so do the fore-legs, when—which is more difficult to arrange, owing to the height of the necessary spinal transection — they also are included, fairly free from shock, within the 'spinal animal.'" By the "spinal animal" he means an animal in which the cord is separated from the encephalon by transection.

Sherrington finds that in the dog a strong flexion reflex in one hind leg nearly always brings out an extension movement in the opposite hind leg. But he further says (p. 162, loc. cit.): "In the spinal rabbit, on the other hand, and less often in the dog, the crossed reflex from one hind limb to the other is sometimes not an asymmetrical movement but a symmetrical one. This seems to stand in obvious relation to the hopping mode of progression of the animal."

From Sherrington we learn that the irradiation of reflexes results in synergic movements which expresses coordinated reflexes in the animal's external life. These coordinated reflexes are acquired; they are not congenital. We have but to watch a child learning to walk to see how the want of these coordinated reflexes defeats the child's early endeavors. It is not until the synergic movements of both limbs are effected through coordinated spinal reflexes that the act of progression ceases to be attended with conscious effort. The act of walking, then, as it is finally learned, is dependent on the acquisition of adaptive coordinated reflexes. Although these coordinated reflexes express some purposive movement and comprise the integrative action of the nervous system, they are reflexes nevertheless, just as the simple tendon reflex or pupillary reflex which consist in the activation of three factors, viz., initiation, conduction and end effect. "The outcome of the normal reflex action of the organism is an orderly coadjustment and sequence of reactions."

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[1] A new Sign for the Detection of Malingering and Functional Paresis of the Lower Extremities, The Journal A. M. A., Aug. 29, 1908, li, 746.

[2] The Journal A. M. A., Oct. 17, 1908, li, 1309.

[3] Semaine Médicale, Nov. 25, 1908.

This experimental view of synergic activity of skeletal muscles admits of very striking clinical application so far as the lower extremities are concerned. If complemental opposition is a purely spinal coordinated reflex, then in spinal diseases in which the "synapse" is affected or destroyed we must expect to find some modification of complemental opposition; and this I find to be a fact. In ataxic subjects who suffer from tabes dorsalis, and also in Friedrich's hereditary spinal ataxia, thus far I have always found that there is a disproportion between the strength of complemental opposition and the initial movement. If an ataxic subject is directed to hold one leg in the air against resistance we find that the other leg is opposed against the couch with much more force than is employed in the initial resistance; that is, the ataxic patient always overdoes the complemental opposition. This is true of patients with moderate degrees of spinal ataxia. But when the ataxia is extreme, when all kinesthetic impulses are interrupted, when the synapse is destroyed, we see quite another behavior. If such a patient is asked to close his eyes and then lift one leg off the couch there will be a symmetrical movement in the other limb; there is then no complemental opposition in such a patient when his eyes are closed. But if the patient is directed to open his eyes and then lift one leg off the couch, he will exercise complemental opposition in the other leg, but the opposition is stronger than the force of the initial movement. Such a patient with the aid of his sight behaves just as the patients in less severe cases behave with eyes closed or opened. An extremely ataxic patient with his eyes closed reacts similarly to the malingerer or hysterical patient, but for an entirely different reason. In the extremely ataxic patient complemental opposition is absent because of the loss of synapse, but in the hysterical subject complemental opposition is absent because of cerebral inhibition. If complemental opposition is a coordinated spinal reflex, then we should find it present in spastic spinal paraplegia; and this I find to be true.

The method of eliciting the initial activation of the flexor iliofemoral muscles of one limb is to give the patient a pin-thrust in the sole of the foot. If the paralytic patient is given a moderately strong prick with a pin on the sole of the foot the thigh is flexed on the pelvis and the leg is flexed on the thigh. If the pin-thrust is stronger, then the flexion reflex is stronger. Thus in genuine spastic paraplegic patients, or in those paraplegic patients in whom all reflexes are not lost, there is a constant relation between the intensity of the pin-thrust and the intensity of the flexion response. This would not be true in functional cases. Moreover, when the flexor reflex is elicited by the pin-thrust on one side we can feel that it is accompanied by activation of the extensor iliofemoral muscles of the other side if the observer's hand is placed beneath the flexor tendons of the knee of the opposite side. The complemental opposition, it is true, is not strong; but neither is the initial reflex very strong, although the thigh and leg will be well flexed in a completely paraplegic patient if he is given a sharp pin-thrust in the sole of the foot. In a patient who had an acute myelitis with absolute paraplegia inferior with urinary and fecal incontinence and absolute loss of all sensations and all reflexes in the lower extremities, there was no such response to the pin-thrust in the sole of the foot for a very obvious reason.

Recently I employed this method of eliciting complemental opposition in a patient who suffered from paraplegia inferior after an injury. I shall mention only the facts which have a bearing on this sign. The patellar reflexes were both present, though diminished in intensity. There was absolute motor paralysis of both thighs and legs. To superficial stroking of the soles of the feet there was no response, but when firm pressure was employed in stroking the soles there was a dorsal flexion of all the toes, i. e., the response could be elicited through the protopathic paths but not through the epicritic paths. Directly after the accident the patient had priapism and marked disturbances in rectal and bladder innervation. When this patient was given a strong pin-thrust in either sole there was a good flexor response and it was accompanied by activation of the extensor iliofemoral muscles of the opposite side.

SUMMARY

To sum up the results of my observations: I think that we are justified in assuming that complemental opposition is a contralateral coordinated spinal reflex and is always present when the spinal synapse is not completely destroyed unless cerebral inhibition intervenes.

Moreover, we must observe in cases of functional spastic paresis of one limb (the iliofemoral muscles, inclusive) that the complemental opposition is present on the sound side because the patient activates his flexor iliofemoral muscles on the initial side, but through cerebral intervention he prevents the normal reciprocal inhibition of the extensor muscles of the affected side. Under such conditions the functional character of the spastic paresis is betrayed by the disproportion between the complemental opposition of the two sides respectively.

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CARCINOMATOUS POLYPOSIS OF THE COLON

WITH REPORT OF AN INTERESTING CASE

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ST. LOUIS

The very interesting character of the clinical manifestations and pathologic findings, combined with the apparent rarity of the disease in point, necessitate the presentation of our report before discussing the subject in detail.

AUTHORS' CASE

Medical Part: Dr. Niebruegge

History.—Miss A. M., aged 19, consulted me Aug. 1, 1908, complaining of a severe offensive, bloody diarrhea. The following data were elicited: The patient's mother's mother died from cancer of uterus. Parents were alive; mother healthy; father had had intestinal trouble for a long time. There were six girls in the family; one died from insolation. There was no tuberculous history. Menses began at 13; painless and regular. The patient had always enjoyed good health until the summer of 1905, at which time her present illness began.

Present Trouble.—During the early part of July, 1905, the patient became nauseated, and vomited at frequent intervals. This continued throughout the remaining part of 1905. She was not sick enough, in her opinion, to consult a physician; she would vomit the greater portion of her food, hence did not eat very much. Gradually the nausea and vomiting disappeared. During 1906 she observed that her stools were occasionally bloody; she would have two or three stools a day, and about once every two weeks they were bloody. In November, 1906, the nausea and vomiting returned and continued at intervals until the spring of 1907. During the summer of 1907 the stools became more liquid in character, and practically always contained blood; they also became offensive. Tenesmus was never present. The patient suddenly felt a desire to go to stool; evacuation always brought satisfaction. Since January, 1908, the patient had been having six or eight stools daily; they were always offensive; sometimes a fairly well-formed stool was passed; stools always contained red blood, the patient never noticed that the stools were tarry During the month previous to the consultation she had been feeling weak and tired out. She frequently felt nauseated and occasionally vomited. She craved a great deal of water; her mother stated that during the past two months she had been having an evening rise of temperature; she frequently felt very hot At the time of consultation the patient felt exhausted, but ate whatever she desired. She had not had pain in the abdomen The rectum felt very sensitive. The patient had lost weight; her appetite had always been good until recently.

Examination.—The very anemic and worn-out appearance of the patient was striking. Pulse was 90; temperature, 99.3. The respiratory tract was apparently normal. Musculature was good; the abdomen of normal contour. Nothing abnormal was found in the abdomen on palpation, except tenderness over the entire course of the colon from the ileocecal valve to the rectum. Rectal examination failed to reveal stricture or abnormal growth; it caused considerable pain. A specimen of stool was obtained. It was a reddish, brownish liquid and very offensive. On standing it quickly separated into an upper sanguinous, cloudy portion, and a lower thick, yellowish portion which looked like pure pus. The urine did not contain albumin or casts. Specimens of stool and of blood were sent to Dr. Fisch.

Diagnosis.—Patient was advised to go to the Deaconess Hospital and submit to a thorough examination under ether. Dr. Babler was asked to see her. The duration of the symptoms, the tenderness along the course of the colon, and the frequent offensive stools pointed to an ulcerative process in the colon. The age of the patient and the absence of tenesmus were confusing.

Surgical Part: Dr. Babler

Examination.—The principal finding was the marked tenderness over sigmoid and entire colon Under ether the uterus and adnexa were found normal; the palpating hand could not find any abdominal tumor; the sigmoid and colon could be outlined without difficulty; digital examination found the rectum free from stricture and abnormal growth. The proctoscope was introduced; the mucosa was found intensely congested, and the seat of numerous small erosins; no tumor was visible. The sigmoidoscope was only partially introduced, because of the thickened, infiltrated condition of the rectum; we suspected an ulcerative colitis and were careful lest we caused hemorrhage or perforation. The mucosa was everywhere intensely congested; neither stricture nor polypi or other abnormal growths could be made out. Since the patient did not take the anesthetic very well, further investigation was discontinued.

Diagnosis.—I felt that Dr. Niebruegge's diagnosis was probably correct. The fact that the patient had never passed fleshy growths or noticed masses protrude from rectum, combined with our failure to find rectal or other growths, seemed to strengthen the suspicion that she had chronic ulcerative colitis. We thought that Dr. Fisch would throw some light on the subject; the duration of the illness seemed to exclude tuberculous colitis. Dr. Fisch reported marked leucocytosis; absence of tubercle bacilli and parasites in stools, but presence of large quantity of pure blood, epithelial cells and pus.

Treatment.—The usual treatment for chronic ulcerative colitis was instituted; the colon was irrigated daily with silver nitrate solutions, or 3 per cent. argyrol solution (one quart); bismuth subcarbonatis and phenylis salicylas were given by mouth, and only the least irritating food was permitted. In spite of the fact that restricted diet usually acts badly in these cases of ulcerative colitis, we deemed it best in our case owing to the nausea. The treatment did not benefit the patient; her stools became less bloody and frequent but more painful; she began to vomit and feel worse; temperature fluctuated between 99.5 and 103.8; pulse between 90 and 132. At the end of a week or ten days an appendicostomy was proposed. On the evening preceding the day set for the appendicostomy, symptoms of acute appendicitis appeared; vomiting was present and there was also marked tenderness over sigmoid and cecum. The patient also complained of pain in both the right and left anterior superior spine of ileum.

Operation.—The abdomen was opened at 8:30 p. m., through the border of the right rectus. The cecum and sigmoid were found intensely congested and considerably distended. The appendix was found lying behind the cecum; it was six inches in length, intensely congested, considerably thickened, and curled on itself; it was bound down by a very short mesoappendix. The entire colon was found free from palpable growth; a constriction could not be found; the walls were considerably thickened; mesenteric glands were not perceptibly enlarged The uterus and appendages were normal. After carefully considering the findings it was decided to excise the distal five inches of the appendix, then draw the stump through a supplemental gridiron incision at McBurney's point, suture the peritoneum to the cecum, and the appendix stump to the aponeurosis of the external oblique and to the skin. This was done as quickly as possible; linen sutures were used. The primary incision was then closed in layers without drainage. Dressings were applied and the patient put abed.

Postoperative History.—Continuous normal saline solution per rectum was given according to Murphy's technic. The patient rallied better than we anticipated. On the day following the operation the artery clamp was removed from the tip of the appendix stump, and a large quantity of gas escaped A quart of normal saline solution was introduced by means of a catheter in the lumen of the appendix stump. Two hours later the greater portion of it passed per rectum. These colonic flushings were repeated daily and seemed to benefit the patient. The appendicostomy wound served the double purpose of permitting gas (and occasionally feces) to escape through the catheter, and of allowing colonic flushings. Toward the end of the sixth day the patient began to fail, she felt nauseated and vomited, the stools again became very frequent and bloody, the patient looked very sick and exhausted. The temperature and pulse were markedly better until the sixth day. Gradually the patient became weaker and weaker, and died on the ninth day after the operation.

Autopsy.—The parents consented to a partial necropsy The abdomen was opened one hour after death, through the primary incision at the edge of the right rectus The peritoneum was everywhere pale and apparently normal. The appendicostomy wound had healed perfectly. The general peritoneal cavity was free from infection The liver, stomach, kidneys and pancreas were apparently normal. The distal six feet of the ileum and the entire colon to the lower part of sigmoid were removed and opened. The entire colon from the appendix stump to upper part of sigmoid was thickened; polypoid growths of various sizes, from pea to small hickory nut, were found scattered throughout the course of the colon. These growths were firm and seemed to be situated in the mucosa; the mucosa was everywhere congested and numerous submucous hemorrhages were noted. There were neither constrictions nor marked ulcerations present; in fact very few erosions were found. A few of the polypoid growths were of the long-stalked variety. The specimens were at once taken to Dr. Fisch, a summary of whose report is given below.

Pathologic Part: Dr. Fisch

A description of the microscopic findings in the material submitted to me, the macroscopic appearance of which is stated by Dr. Babler, would need far more space than is allowed for a clinical paper, in order to give proper weight to the great interest and pathologic importance of the condition. The detailed report will be published in a journal on pathology.

Microscopic Examination.—Microscopic sections revealed the carcinomatous character of the total number of the polypi; the type of this character was that of a malignant adenomatous state that resulted in invasion of the mucosa and submucosa, converting these tissues into a thick, hard layer, consisting of carcinoma tissue, all around the wall of the intestine. The upper layers of the submucosa and the mucosa were intensely infiltrated with inflammatory products, with plasma in preponderance. The intestine from the upper portion of the rectum to the distal *part of the small* intestine thus showed a uniform sheath of carcinoma between *the muscular* layers and the submucosal and mucosal layers. The two muscular layers were so far not involved, although in their lymphatic spaces many nests of carcinoma cells were present. The serosa was, as yet, intact; but considerably thickened. The condition obtained, too, for the appendix.

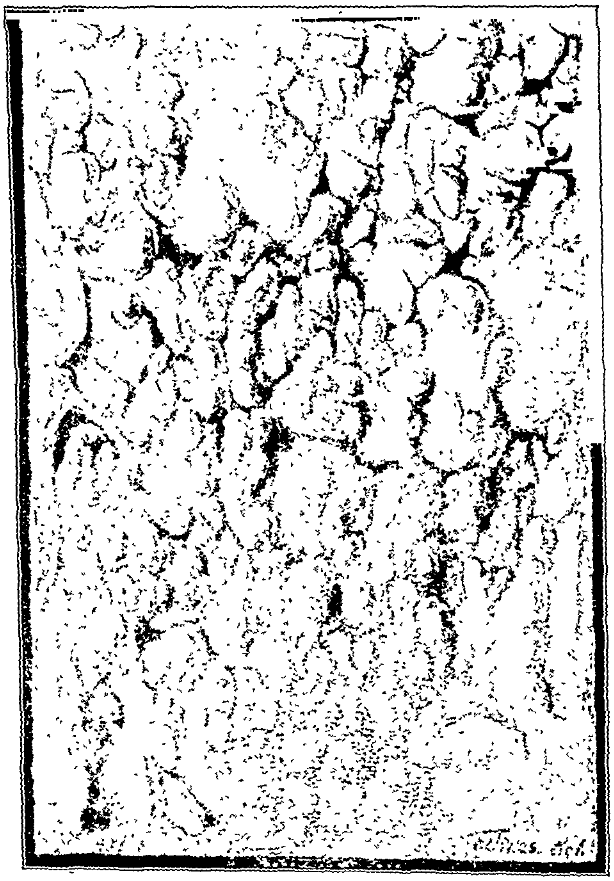

Fig. 1.—Portion of transverse colon (natural size).

In no place of the whole tract could anything be found to suggest the presence of a primary tumor. The rectum, in its distal portion, was free from any tumor formation. All of the mesenterial glands examined were free from metastatic enclosures, and nowhere in the abdomen could a metastasis or tumor be found.

The uniform carcinomatous character of the glandular tissue has not been observed before, although partial foci of this form have been seen in a few cases of otherwise benign polyposis.

REMARKS: DR. BABLER

Carcinomatous polyposis of the colon must be regarded as of very infrequent occurrence. In carefully reviewing the available literature I have been able to find only a few cases. It must be admitted that carcinoma *occurs more frequently during childhood* and adolescence than we have heretofore appreciated. Phillips[1] has recently collected 390 cases of carcinoma during childhood. Creite[2] reported a case of cancer of penis at 2 years; Thompson's[3] patient with adenocarcinoma of breast was only 11 years of age. The patient in Clair's[4] historic first case of cancer of colon during childhood was 3½ years of age. Recently McWilliams'[5] collected 90 cases of primary carcinoma of the appendix; in 60 per cent. of 78 cases the patient was under 30 years of age. Simple intestinal polyposis is apparently a disease of childhood; carcinomatous polyposis of the colon is perhaps a disease of adolescence and adult life.

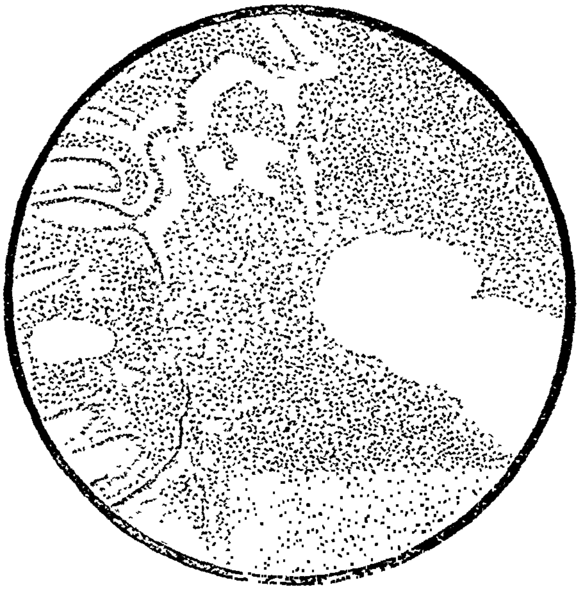

Fig. 2.—Vertical section from a small polypus (Leitz Eyepiece 4, Obj. 3)

Pathology.—Hauser[6] is a strong advocate of the theory that simple polypi of colon may become malignant. Meyer[7] holds that intestinal polyposis is congenital; Zahlmann[8] reported six cases occurring *in one* family; Cripps[9] and others have cited similar cases. Doering[10] has recently collected reports of fifty cases of intestinal polyposis; in 46 *per cent. of the* cases carcinoma was also present: in many of these latter cases the polypi were simple adenomata. In our case the polypoid growths were situated in the mucosa; all that were examined showed carcinomatous structures. In Petrow's[11] interesting case the patient presented symptoms of ileus: operation showed ileocecal intussusception apparently due to polypoid growths; at autopsy two additional intussusceptions were found;

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1. Phillips. Ztschr Krebsforsch., 1908, v, 326.
2. Creite: Deutsch. Med. Wchnschr., 1905, xxxi, 894.
3. Thompson Brit. Med Jour., 1908, ii, 502
4. Clair: Oesterr. Ztschr. f. Kinderh., 1855, i, No. 2.
5. McWilliams: Am. Jour. Med. Sc., June, 1908.
6. Hauser: Deutsch Arch. f. klin. Med., 1895, lv, 429.
7. Meyer: Inaug. Diss., Giessen, 1898.
8. Zahlmann: Jahrb. über die Leistungen u. Fortschr. d. ges. Med., 1903, i, 297.
9. Cripps. Tr. Path Soc. Lond., 1882, xxxiii, 137.
10. Doering: Arch. f. klin. Chir., 1907, lxxxiii, 194.
11. Petrow: Abstr. in Centralbl. f. Chir., 1896, p. 542.

the intestine was found studded with polypoid growths; the growths showed incipient carcinomatous changes.

Simple *polypi of the intestine are found most frequently* in the rectum. Doering and others have reported cases in which rectal polypi were operated on and the growths found to be simple adenomata: several months or years later the patient returned with a carcinoma of the rectum; many of the polypoid growths in ascending, transverse and descending colon were found to be pure adenomata.

A striking feature of carcinomatous polyposis is the absence of metastases and of involvement of the mesenteric glands. We have collected reports of nineteen cases in which carcinoma of the colon and intestinal polyposis were present in the same patient; also reports of five cases in which the polypi showed carcinomatous changes. *Multiple primary carcinomata of* the intestine may occur. Bunting[12] has reported one case of multiple primary carcinomata of the small intestine and collected reports of five others from the literature. Billroth held that, in order to be multiple primary carcinomata, the growths should satisfy the following conditions:

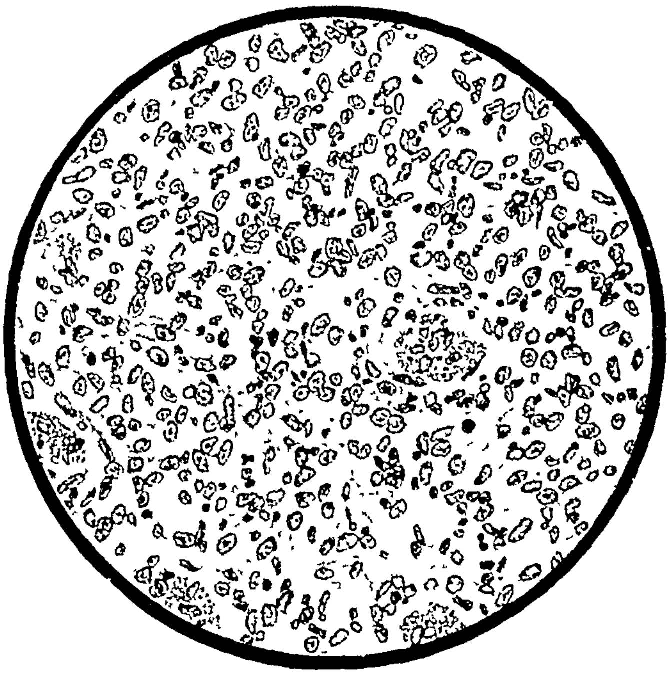

Fig. 3.—Portion of submucosal carcinomatous infiltration (Leitz, Eyepiece 4, Obj. 6).

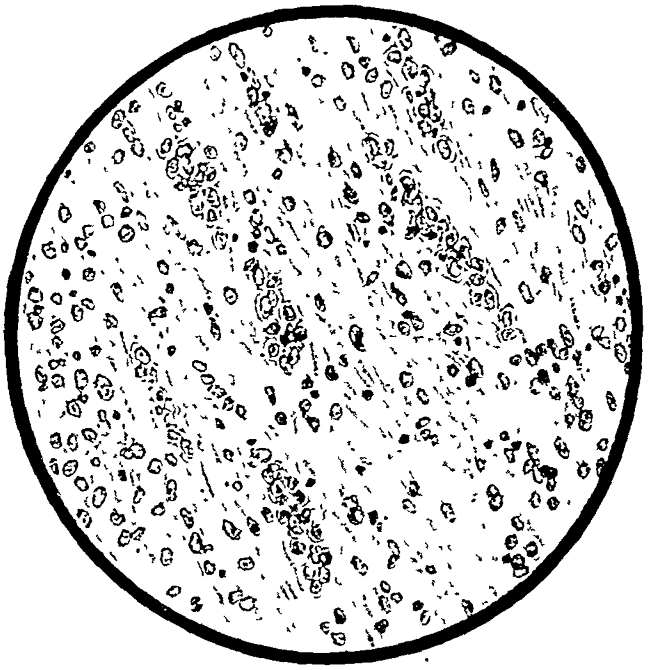

Fig 4.—Section of circular muscular layer; nests of carcinoma in lymphatic spaces

1. Each must show a different histologic structure.
2. Each must be traceable histologically to the epithelium of its matrix.
3. Each must show its own metastases.

It is obvious that multiple primary carcinomata of the intestine will not conform to all of these requirements of Billroth, since they seldom or never produce metastases. In Bunting's case the nodules seemed approximately of the same age; each showed histogenic relation to the epithelium of the crypts of Lieberkuhn over it.

Symptoms.—Tuttle[13] has very fittingly said that the clinical manifestations of cancer of the colon vary according to the site, character and state of development of the malignant growth. He says: "Diarrhea or frequent desire to go to stool with no effectual result is the striking early symptom of cancer of the colon." In our case of carcinomatous polyposis of the colon the patient stated that evacuation of rectal content always brought comfort; tenesmus was never complained of. *It must be obvious that the usual symptoms of cancer of the colon are not to be looked for in cases of carcinomatous polyposis of the colon*, since the growths do not interfere with the normal outflow of intestinal content; they do not, as a rule, attain sufficient size to be palpable. The frequent, bloody, offensive stools, the progressive anemia, the gradual exhaustion, the age of *the patient and the long duration of the symptoms* seem to me to be very impressive. In Petrow's case the symptoms of ileus caused the patient to seek medical aid. Forster's[11] patient died from tuberculosis; autopsy showed polypoid growths scattered throughout the course of the colon; the polypi showed carcinomatous change. In our case the afternoon rise of temperature was *apparently* due to absorption of septic material in the colon.

So few cases of carcinomatous polyposis have been reported that it is difficult to do more than cite the symptoms present in these reported cases.

Diagnosis.—The mere fact that a young person has had a bloody, more or less offensive diarrhea for months or years should at least arouse a strong suspicion of intestinal polyposis. The age of the patient and the long duration of the colitis are regarded as characteristic of intestinal polyposis. Frequent bloody stools and progressive anemia occurring in a young person should arouse suspicion. When the rectoscope and sigmoidoscope fail to clear up the diagnosis, and when the stools contain pus, intestinal débris and blood only, it is reasonable, *after making a thorough examination under* ether, to suspect malignancy. The diagnosis of carcinomatous polyposis of the colon may be practically impossible. In many cases, however, the finding of fleshy masses in the intestinal excreta will clear up the diagnosis. An exploratory laparotomy is preferable to prolonged doubt and delay. Bunting and others have shown that multiple carcinomata of the small intestine *do not usually cause clinical manifestations.* In tuberculous ulceration of the colon the symptoms do not persist so long; the clinical picture differs quite materially.

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[12] Bunting: Johns Hopkins Hosp. Bull., 1904, xv, 389.
[13] Tuttle: N. Y. State Jour. Med., 1902, p. 169.
[14] Forster: Rev. med de la Suisse Rom., 1903, xxiii, 362

Treatment.—If the diagnosis could be made before the patient is too exhausted, and if the growths were limited to the ascending, transverse and descending portions of the colon, it is probable that an intestinal exclusion would be advisable; the excluded portion could be excised at a second operation. Rotter[15] did an intestinal exclusion in his case, but the patient was too exhausted and septic to survive. Margarini[16] made a cecal colostomy, but the patient did not improve; he then removed as many of the rectal tumors as was possible, and closed the colostomy wound: the patient recovered: the polypi did not show malignant changes. Von Black[17] was the first to call attention to the two-stage operations in cancer of the colon. Petermann[18] has recently stated that primary resection of the colon with suture has a mortality of 50 per cent.

In our case an appendicostomy was performed, since we were of the opinion that the patient had chronic ulcerative colitis. Tuttle[19] has recently collected reports of 77 cases in which an appendicostomy, as first recommended by Weir[20] in 1902, was performed. The results in chronic ulcerative colitis have been quite satisfactory. It does not seem possible that the operation could be of any great value in carcinomatous polyposis of the colon.

REPORTED CASES

Below will be found synopses of six cases which are somewhat similar to our case; in my opinion, Cases 3 and 5 are to be considered as especially so.

1. **Bardenheuer's Case.**[21]—The patient, a man aged 48, had had pain in the abdomen for one year, and pain on defecation. Examination showed cancer of rectum. The growth was excised. Autopsy showed polypoid growths of various sizes scattered throughout colon. Microscopic sections showed all the growths to be carcinomatous. Bardenheuer questions whether the rectal growth or the polypoid growths were primary.

2. **Hanford's Case.**[22]—The patient, a woman aged 34, died of adenocarcinoma of the rectum. Autopsy showed metastases in liver; the colon was studded on its inner surface with polypoid growths of various sizes; about the middle of the transverse colon was a polypus the size of a walnut which had caused a stricture; the mesenteric and lumbar glands were not much enlarged. The polypi showed incipient malignant change. Hansford contended that his case demonstrated the possibility of simple polypi becoming malignant. (The growths were malignant adenomata.)

3. **Petrow's Case.**—The patient, a girl aged 20, had symptoms of ileus. Operation showed ileocecal intussusception. Resection was done and the patient died. Autopsy showed two other intussusceptions, one in the jejunum and one in the ileum. Polypoid growths were found in both small and large intestine. The intussusceptions were due to polypi. Microscopic sections of the polypi showed incipient malignant changes. There was neither stricture nor large carcinomatous mass present; metastases were not found.

4. **Hauser's Case.**—The patient, a man aged 33, had had diarrhea and pain in the abdomen for eleven years. Stools were offensive. Examination showed cancer of the rectum. Autopsy showed polypoid growths of various sizes in stomach, small and large intestine. The polypi were found to be malignant. Hauser contended that his case coincided with that of Bardenheuer. Hauser has cited two cases in which polypi and carcinoma were present in the same patient.

5. **Forster's Case.**—The patient, aged 23, died from tuberculosis. Autopsy showed circular cancer of colon and multiple polypoid growths in colon. The polypi showed evidences of malignant changes.

6. **Doering's Case.**—The patient was a boy, aged 16, whose mother and uncle had died from a cancer of rectum. The patient had been complaining of painful defecation followed by protrusion of a fleshy mass. Examination showed polypi in the rectum. Doering removed as many of the polypi as was possible; he found that the sigmoid was also the seat of the growths. Microscopic sections of polypi showed them to be simple adenomata. Three years later the patient returned: examination showed cancer of rectum. An artificial anus was made; the patient died. Autopsy revealed carcinoma of rectum and of hepatic flexure; four carcinomatous growths in colon; polypoid growths of various size were also present in colon. Some of the polypoid growths were found to be simple adenomata converted into malignant adenomata; many of the polypoid growths were pure adenomata. In the rectal growth the conversion of simple into malignant adenomata seemed clear.

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PARALYTIC ILEUS

WITH REPORT OF TWO CASES SUCCESSFULLY TREATED BY OPERATION

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CHICAGO

Every operator of much experience in abdominal surgery has met with the distressing postoperative condition of abdominal distention the degree of which may range anywhere from a mere accumulation of gas in the intestine, causing only slight distress, to a well-developed condition of ileus, with impending death. During the past eighteen months two patients with such conditions have presented themselves for operation on my service at St. Joseph's Hospital.

Before entering into a discussion of the two cases under consideration it may be well to make a few remarks regarding the general subject of ileus. A review of the literature on this subject shows that volumes have been written, and that the term used without qualification leads to endless confusion, since it designates only a syndrome and describes no definite morbid condition. It will be well, therefore, in using the term to qualify it with some term which will, in a measure, at least, indicate the specific pathology. This paper deals with paralytic ileus, which may be divided into dynamic and adynamic forms. Paralytic ileus of both types is an interference with peristalsis caused by a disturbed innervation of the intestine, as opposed to mechanical ileus, which is a form of intestinal distention brought about primarily by some actual physical obstruction of the bowel.

Experimental investigation into the influences of the innervation on intestinal movements have proved uncertain, but Pflüger established, by a series of investigations, the following facts: The vagus nerve innervates the entire small intestine and the irritation of its fibers either causes movements throughout the small intestine or increases peristalsis. Irritation of the splanchnic nerve, on the other hand, tends to inhibit movements of this portion of the intestinal tract and also causes anemia of its blood vessels, while the division of these same nerves causes a hyperemia.

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[15] Rotter: Arch. f. klin. Chir., 1898, lviii, 357.

[16] Margarini: Clinici Chir., 1903; Refer. Hildebrandt's Jahresbericht, 1903, p. 556.

[17] Von Black; Cited in Petermann: Arch. f. klin. Chir., 1908, lxxxvi, 52.

[18] Petermann: Arch. f. klin. Chir., 1908 lxxxvi, 52.

[19] Tuttle: The Journal A. M. A., 1906, xlvii, 426.

[20] Weir: Med. Rec., 1902, lxii, 201.

[21] Bardenheuer: Arch. f. klin. Chir., 1890-1, xli 887.

[22] Hanford: Tr. Path. Soc., Lond., 1890, xli, 133.

It would be interesting—in fact, of vital importance to surgeons and clinicians alike—to establish by a series of experimental investigations the relation between the effects produced on the central and sympathetic nervous systems by autointoxication following certain abdominal operations, on the one hand, and the pathologic conditions which occur in the intestinal wall, on the other.

The question whether paralytic ileus is caused by a disturbance in the anterior cornual cells and their corresponding sympathetic ganglia giving origin to the fibers of the splanchnic nerves, or whether the disturbance takes place in the sympathetic plexuses of Auerbach, Meisner and Billroth in the intestinal wall will furnish an interesting and important field of investigation.

I hope to throw some light on this subject by reporting at a later date the results of some experiments which are under consideration at the present time.

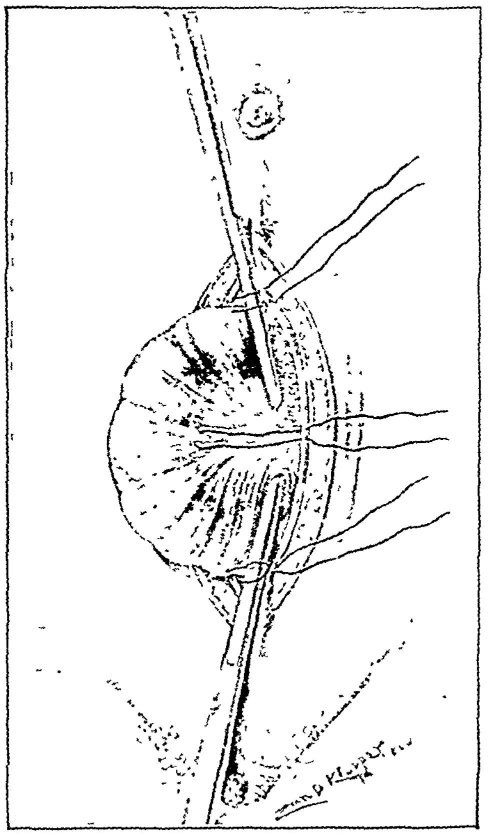
Fig. 1.—Loop of intestine clamped off and the four anchor sutures to the fascia in place.

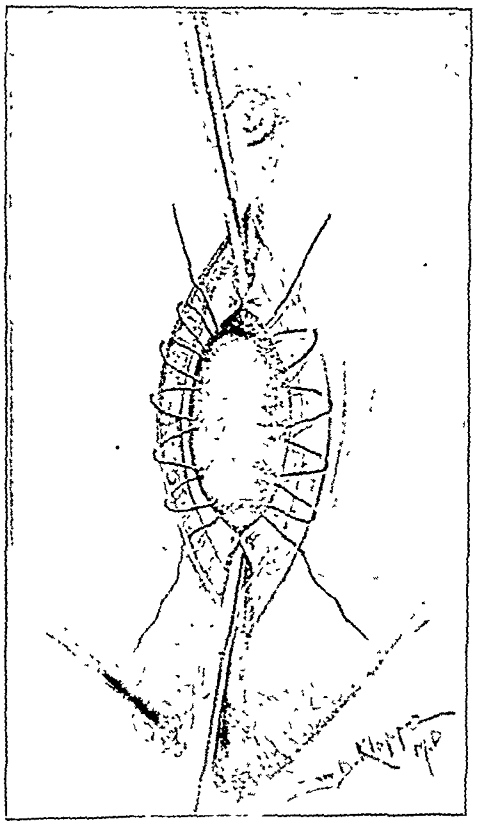
Fig. 2.—Cut edge of the skin approximated to the bowel by means of a row of Lembert sutures.

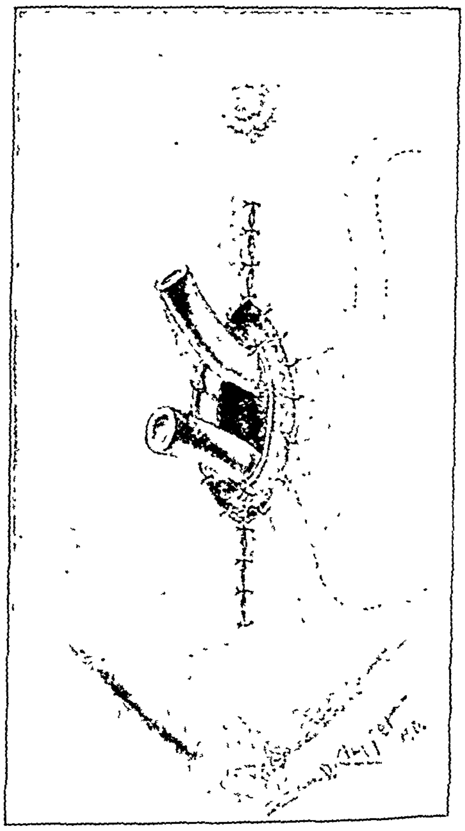
Fig. 3.—Two rectal tubes introduced into the bowel, the upper into the proximal portion, and the lower into the distal.

REPORT OF CASES

Case 1.—*Patient.*—Mrs. R., a short plethoric individual, aged 49. The physical examination revealed the following condition: The abdomen markedly distended and as tense as a drum; there was a decided tenderness at McBurney's point; pulse was 110; temperature, 100 F. The abdomen showed a small ventral hernia which stood out very prominently in this tympanitic condition. There was a history of two distinct attacks of appendicitis, at which times the patient was seen by a competent surgeon who made that diagnosis. The patient was sent to the hospital with instructions that a movement of the bowels should be secured, if possible, before operation. At the hospital that night the patient was given a cathartic and an enema, and at 12:30 a. m. passed considerable gas as a result of the latter.

First Operation.—The following morning the patient was in better condition and it was decided to operate that day. This was done at 10 a. m. When the abdomen was opened in the median line below the ventral hernia and the field inspected, a moderately inflamed appendix bound down by a few adhesions was found. In the folds of the mesenteriolum of the appendix was found a large mass of fat resembling a true lipoma, which is mentioned here because the operator had never before met with that condition. As the operation did not take more than thirty minutes, the hernia was repaired, the entire operation requiring not more than one and one-half hours. The patient was returned to her bed in good condition.

Second Operation.—The patient received the ordinary after-treatment for laparotomies; yet she continued in a tympanitic condition for the following thirty-six hours, at which time her symptoms became so alarming (her pulse going to 162 and her temperature to 103 degrees, with respirations at 46, and the beginning of stercoraceous vomiting) that it was very evident that she could live not more than a few hours unless the distention could be immediately relieved. After a hurried consultation with my brother I decided to operate at once. After a short preparation the old incision was opened, no anesthetic being given until the peritoneum was reached, when gas was administered followed by a few whiffs of chloroform. The peritoneum was quickly incised and the first loop of the intestine that presented itself was picked up. There were no signs of peristalsis, consequently only a small amount of gas escaped when the bowel was opened. The technic of this operation follows later in the paper. Irrigation with salt solution directly into the bowel was begun immediately and was continued for thirty minutes. It was noted that gas and fecal matter continued to escape with the irrigation, consequently this treatment was repeated at intervals of two hours. The patient was returned to her bed and given the ordinary postoperative treatment.

Forty-eight hours passed before the bowel gained its normal peristalsis, then the patient made a very good recovery.

Case 2.—*Patient.*—Miss G., entered the medical service of St. Joseph's Hospital, Nov. 5, 1908, with a history of gallstone colic, one attack having occurred two and a half years previously. The patient had been suffering from the present attack for eight days, and presented the following conditions on physical examination: marked jaundice; extreme *tenderness* over the gall bladder region; pain shooting to the back and radiating to the right shoulder; *vomiting; temperature* 103 degrees, and pulse 120. There was a marked leucocytosis.

First Operation.—It was apparent that an operation was imperative. Consequently the patient was sent to the operating room and no time was lost in opening the abdomen and exploring the gall bladder, which was found to be markedly distended, with walls considerably thickened. On account of the inflammatory adhesions between the gall bladder and the surrounding viscera some time was consumed in controlling the hemorrhage. This complication necessitated concluding the operation hurriedly as the patient was in a very weak condition. The gall bladder was opened in the ordinary way, no time being taken to explore the interior; and a large tube was inserted after the Mayo plan. The patient was then dressed and returned to her room in a fair condition.

Postoperative History.—She made a good recovery and continued in a good condition, the temperature and pulse being normal and the bowels moving every day for the following five days. Dr. Alice Hamilton, of the Memorial Institute for Infectious Diseases, Chicago, who is investigating the subject of typhoid carriers with special reference to the gall bladder infections, examined this patient on the fifth day after the operation and found the paratyphoid organism in pure culture in the blood. On the evening of the fifth day after the operation the patient had two chills with a rapid rise in temperature and pulse so that on the following morning she presented the picture of profound collapse. In this condition she remained until the evening of that day, during which time the abdomen gradually became markedly distended. Repeated attempts to move the bowels both by catharsis and enemas proved futile. At 6 o'clock that evening the patient seemed in a dying condition. Dr. Arthur A. Small was called in consultation and, after a hurried examination, approved the proposed procedure for the relief of the ileus. The clinical chart at this time showed the pulse to be 156 and the temperature 103.5. There was also stercoraceous vomiting. The patient was sent to the operating room and the operation was performed under cocain anesthesia. The patient had an uneventful recovery, save the irritation occasioned by the fecal material passing out on the abdomen.

TECHNIC OF THE OPERATION

The choice of an incision depends somewhat on the site of the incision of the original operation. Under most circumstances the first incision may be used for entrance into the abdomen, thus lessening the pain and the shock to the patient. The location of choice, however, is in the median line midway between the umbilicus and the symphysis pubis, for in this region a loop of the intestine near the lower end of the jejunum or the beginning of the ileum can be most readily picked up.

In other words, the operator attempts hurriedly to select a point in the small intestine approximately midway between the pyloric end of the stomach and the ileocecal valve. The distended loop of bowel is brought up through the abdominal wall and the distention reduced by stripping the intestine either way and applying a rubber-mounted intestinal clamp at the upper and lower angles of the wound, thereby collapsing the intervening portion of the bowel and reducing it to a condition so that sutures may be affixed without perforation.

Experience in handling these two cases has demonstrated, contrary to the teachings of many text-books on surgery, that but little gas escapes when the bowel is opened. Consequently great stress is placed on the introduction of long tubes into the intestine, as by this arrangement the irrigating solution performs a double rôle. First, the solution by entering the bowel at a considerable distance from the opening mechanically forces the gas and fecal matter to escape. Second, the introduction of the saline solution into this portion of the intestine with its rich supply of lymphatics acts as an immediate and powerful stimulant.

The after-treatment in such cases consists in sustaining the patient by rectal feeding for one week, at which time this feeding is supplemented by liquid diet by mouth, and this form of treatment is continued for a period of several weeks until the patient has regained sufficient strength to undergo an operation for the closure of the intestinal fistula. The feeding by mouth is discontinued for a week previous to the operation and the intestine carefully irrigated with an antiseptic solution.

The operation for the closure of the fistula consists in the resecting of five or six inches of the intestine and bringing the bowel together by means of a lateral anastomosis.

The treatment of paralytic ileus accompanying typhoid fever by this method has been suggested because of the parallelism of that disease and Case 2 in this paper. From the bacteriologic investigation of cholecystitis it would seem logical to conclude that the paratyphoid organism isolated from the blood of this patient by Dr. Hamilton may have remained latent in the gall bladder from the time of this patient's first attack until the date of this operation, at which time the disturbance set up in the gall bladder by the operation caused the organism to invade the blood, producing paratyphoid septicemia which in turn, just as in typhoid fever, may have been responsible for the paralyzed condition of the bowels in this case.

CONCLUSION

This mode of treatment, *per se,* is attended with grave danger and should be resorted to only after every effort by medicinal means has proven futile, but is apparently indicated in extreme cases in which death seems impending as sometimes occurs in the following conditions: (a) paralytic ileus following operations; (b) abdominal distention caused by suppurative peritonitis; (c) extreme paralytic ileus accompanying typhoid fever; (d) injuries to, and diseased conditions of, the spinal column producing a paralyzed condition of the intestines.

100 State Street.

THE POLLUTION OF STREAMS BY DISTILLERY WASTE

WITH SPECIAL REFERENCE TO LEPTOMITUS LACTEUS *

MARSHALL LANGTON PRICE, M.D.
AND
WILLIAM ROYAL STOKES, M.D.
BALTIMORE

The pollution of streams by distillery waste is, in the United States, a comparatively recent problem. Changes in the condition of the liquor trade have brought about the concentration of distilleries around cities and thickly settled communities, where they give rise to nuisances, the character and severity of which are governed mainly by the process employed and by the size of the stream into which the waste is emptied. The pollution of water courses in one way or another is certainly one of the most serious and important problems with which the health authorities have to deal. This is probably the only sanitary problem in which public opinion and the law have kept pace with scientific progress. The riparian rights of owners have been jealously guarded by the common law for several centuries and have been affirmed by statutes in many of the states of the Union.

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* Prepared for, but not read before, the Section on Hygiene and Sanitary Science of the American Medical Association, Chicago, June, 1908.

THE LEGAL ASPECT

The common law proposes that the owner of riparian rights shall have guaranteed to him not only the quantity of water which is necessary for his purposes, but also that its quality shall be unaffected, or, as the law has affirmed on several occasions, "the right of a riparian owner to have the water of a stream come to him in the natural purity or in the condition in which he has been using it for purposes of his domestic use or of his business is as well recognized as is his right to have the flow to his land in its usual quantity."[1]

An abstract from the opinion of Judge Magruder of the decision of the Court of Appeals of Maryland in the case of Wm. E. Woodyear vs. Henry Shaefer, April term, 1881, is worthy of quoting, as it specifically demolishes all of the ground on which the pollution of a stream is generally maintained. The following points are especially important: "There can be no prescription for a public nuisance." "Where any prescriptive right to pollute a stream has been gained it can only be maintained to the extent that it is shown to have injuriously affected the interest complaining." "It is no answer to a complaint of nuisance that a great many others are committing similar acts of nuisance on the stream; each and every one is liable to a special action and to be restrained." While this decision in the case of Woodyear vs. Schaefer holds the specific nuisance at issue, namely, a slaughter house, to be *prima facie* a nuisance, and it is held that blood running into a stream constitutes a nuisance that will be restrained, it is not held, so far as I know, in any court, that distillery waste is *prima facie* a nuisance, and it is necessary to show in any specific case that such waste does cause a nuisance.

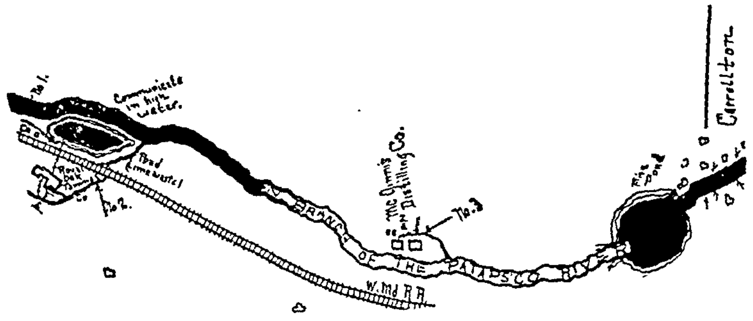

Fig. 1.—Sketch map of the North Branch of the Patapsco River (not drawn to scale), showing the R. Tannery, the M. Distillery and the town of Carrollton. The arrows and numbers indicate where specimens were taken.

The decisions quoted refer mainly to suits in equity or to injunction proceedings to restrain a nuisance. Evidently this is not sufficient, however, in the pollution of streams where so much serious damage to health, comfort or property may exist, and the laws of Maryland make the pollution of streams a misdemeanor, punishable by fine or imprisonment, and similar statutes exist in other states. These statutes do not specifically refer, however, in general, to distillery waste. Hence in the specific case which we describe it was necessary to show, first, that the stream in question was polluted and rendered unfit for drinking or domestic purposes; second, that the distillery waste in question was the cause of such pollution either in whole or in part. With this review of the general legal principles involved in the pollution of a stream, we may pass to this specific case, which is of particular interest on account of the fungus growth causing the pollution and of its direct dependence on the distillery waste.

POLLUTION OF THE PATAPSCO RIVER

During May, 1907, the secretary of the State Board of Health of Maryland, one of the authors of this paper, received a petition from 124 residents of some two or three small towns along the bank of the Patapsco River of Maryland to restrain the M. Distilling Company and the R. Tanning Company (Fig. 1) from discharging their waste into the stream, alleging that a serious nuisance was being produced by these two corporations. An inspection of this stream was made about the 1st of May with the county health officer, beginning with the tannery and following the stream down about three miles through two or three small villages. The water beginning about one-half mile below the tannery became black from the lime and tan bark discharged from the tannery and continued so for a distance of two or three miles. At the site of the distillery a frothy white liquid ran into the stream without producing any perceptible change. About a quarter of a mile below this point, however, there was a very perceptible odor, which increased in intensity as we descended the stream. At a pond furnishing power for a flour mill a number of dead fish were seen on the surface, and at a small town, below, the fungus which we describe appeared in great quantity along the bottom and sides of the river and at the race leading into the flour mill.

The odor along the banks of the stream was perceptible for several hundred feet back and was almost intolerable at the flour mill. The fungus accumulated at this place and had to be removed with a rake or shovel, and there must have been 100 pounds removed daily. In the stream the fungus could be seen adhering to the banks or growing from sticks like sponges. The free filaments gave a beautiful feathery appearance to the growth when floating in the water. The specimens when removed collapsed in a gelatinous mass and gave forth the most remarkably putrid, acrid and nauseous odor which we have ever experienced. The specimens were taken from this point and sent to the bacteriologic laboratory for examination. An opinion was delivered on this nuisance to the county health officer on May 6, 1907. The following are the main points as regards the M. Distilling Company:

> First, that the said firm or corporation is situated on the Patapsco River near Carrollton, and that it is engaged in the manufacture of rye whisky.
>
> Second, that the firm, in the manufacture of rye whisky, causes a mash of rye and water with yeast or some other ferment to ferment in large tanks or vats to produce alcohol and other extractives, giving the whisky its essential flavor and properties.
>
> Third, that the firm causes its mash when fermented to be distilled at a low temperature to produce whisky.
>
> Fourth, that the firm causes the residuum of the mash remaining after distillation to discharge through an open drain into the waters of the north branch of the Patapsco river at a distance of about 100 yards.
>
> Fifth, that the waste material discharged from the drain of the firm has a sour, penetrating and disagreeable odor.
>
> Sixth, that the waters of the north branch of the Patapsco river have, at Carrollton, at some distance above and below, a sour penetrating and disagreeable odor.
>
> Seventh, that the M. Distilling Company has violated the provisions of Section 429 of Article 27 by permitting

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[1] Wood on Law of Nuisance, Sec. 677; Gladfelter vs. Walker, 40 Md., 1, Wood vs. Suttcliffe, 2 Sim N. S. 163; 8 Eng. Law and Equity 217; Stockfort Water Works Co. vs. Potter 7, H. and N. 159.

offensive matters to flow from the distillery of the said company into the north branch of the Patapsco river, thereby causing pollution of the stream.

The following extracts are taken from the general opinion in regard to the nuisance:

> That the waters of the Patapsco river have continuously, or at intervals, an offensive odor from a point a short distance below the plant of the M. Distilling Company to and below the town of Carrollton.
>
> That the waters of the Patapsco River contain between the points specified in Section 2, a growth of the nature of algæ of penetrating and offensive odor.
>
> That the waters of the Patapsco river have been habitually used for domestic purposes until they became fouled and polluted and unfit for domestic use.

Representatives of the corporation and petitioners were heard before the State Board of Health on June 12, and on June 13 orders were issued to the M. Distilling Company, through the president and general manager, enjoining them and all other officers, agents, employés or stockholders of the body corporate against causing, allowing or permitting any of the waste from their distillery to flow, directly or indirectly, into the Patapsco River after June 23, 1907. The distilling company shut down about June 20, a few days before the order went into effect.

On July 5 we visited the distillery to determine whether the orders of the board had been complied with and also to investigate the condition of the stream since the polluting materials had been withdrawn. We inspected the stream for about two miles and took frequent scrapings from the bottom with a long rake. We found this particular fungus had completely disappeared in the short interval since the shutting down of the distillery plant. We found a few fungi of the common variety, mostly chlorophyl-bearing algæ. without unpleasant odor excepting a slight fishy smell. Some of the peculiar characteristic odor remained in the deep scrapings from the bottom. The disappearance of algæ was so complete that we were unable to obtain any specimens for examination. The citizens along the bank reported the stream free from odor.

NATURE OF THE WASTE

Distillery waste is a yellowish-white, opaque liquid with a spirituous or yeasty odor and slightly acid reaction, due to acetic acid. In about twenty-four hours the reaction becomes alkaline. As appears in the analysis, it contains a very large quantity of nitrogen and shows that the organic matter has only partially been exhausted by fermentation. The chemical analysis does not show why this material should be so favorable to fungus growth and particularly to the *Leptomitus lacteus.* Apparently the conditions under which this fungus grows are more or less delicately balanced. Too great or too little a dilution will apparently prevent its growth. In this particular instance the fungus did not appear until the stream had flowed about one-quarter of a mile beyond the distillery outlet. Since the dilution progressively increases in any stream, we would expect to see the fungus appear in small streams in some part of their course, but, on the other hand. if the waste was discharged at once into a large body of water the dilution would probably be too great to favor the growth of the *Leptomitus.* In a small stream such as this the only means that could be suggested would be to completely dry and dispose of the waste or by aseptic tank process carry the fermentation process to a complete stage of decomposition. Attempts to cultivate the fungus have been uniformly unsuccessful, though during June we attained partial success by some experiments carried on at room temperature. Evidently it was necessary in this instance to obtain corroborative evidence that the growth of the *Leptomitus* was dependent on the distillery waste and not on the discharge from the tannery or a mixture of the two wastes. Experiments were made with two samples of tannery waste, Specimen 1 and Specimen 2, and with distillery waste, Specimen 3. Dilutions were made in ordinary fruit jars as follows: Tannery Specimen 1. two samples. dilution 1 to 500 and 1 to 5,000; tannery Specimen 2, same dilutions; Distillery Specimen 3, two samples, same dilutions. We then had six jars containing two different kinds of waste, diluted in proportions of 1 to 500 and 1 to 5,000. Six additional samples were then prepared by mixing equal parts of the 1 to

Analysis of Sample Marked "X——— Distilling Company."

(All figures expressed in parts per million)

Color	Yellow
Odor	Spirituous
Total solids	17,990
Ignited or mineral solids	1,896
Volatile and organic solids	16,094
Chlorin	20.5
Nitrogen as free ammonia	8.33
Nitrogen as albuminoid ammonia	18.76

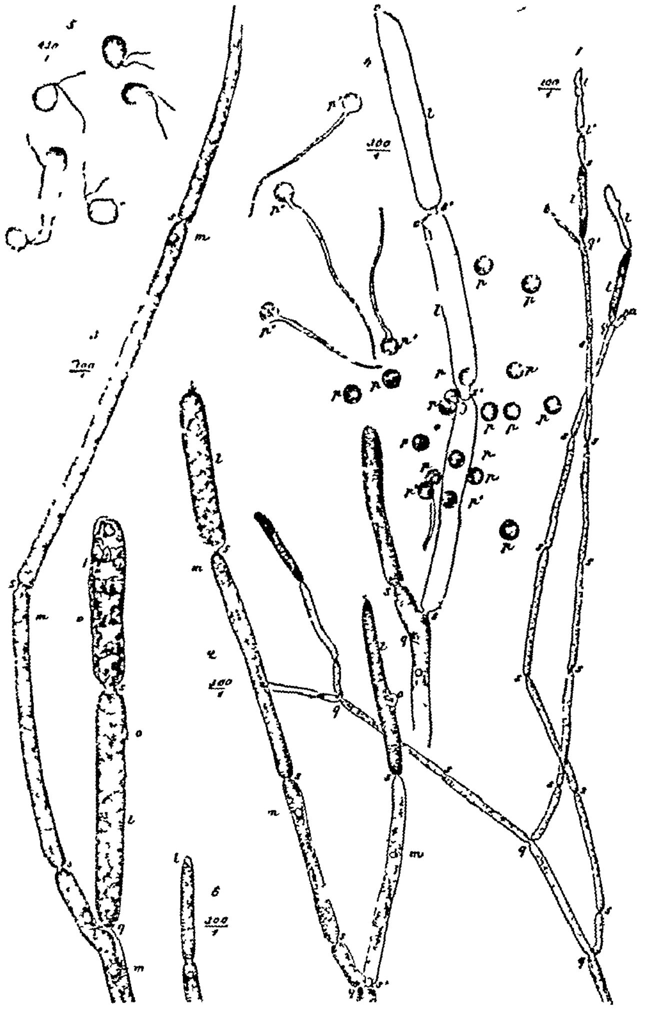

Fig 2.—Photograph copied from *Jahrbuch f. Wissenschaftliche Botanik*, vol. ii 25 showing different conditions of *Saprolegniæ lacteæ* m nuclei at the joints, s. the constrictions; p, spore swarms at rest after evacuation from the Sporangium; p', young spores producing 'Schlanchen' or hyphæ At e' (1) a few spores are seen in the sporangium At s' (4) the nuclei close the constrictions and form the partition walls of the joints.

500 distillery waste with tannery Specimen 1 and Specimen 2 separately and with equal parts of the mixture of Specimen 1 and Specimen 2, the samples being in 1 to 500 dilution, and a similar set of samples were prepared in 1 to 5,000 dilution.

A portion of the fungus was removed by the point of a paper knife and washed off by movements of the knife in the fluid. The odor soon disappeared from the jars, excepting a slight leathery odor in those containing tannery waste. At the end of three days the characteristic odor reappeared in the inoculated jar containing the unmixed but diluted distillery waste. This was only plainly perceptible in the 1 to 5,000 dilution, and in this jar evidences of growth could be plainly perceived in new filaments springing off from the original material. None of the other samples containing tannery waste alone or mixed with distillery waste showed any evidences of growth.

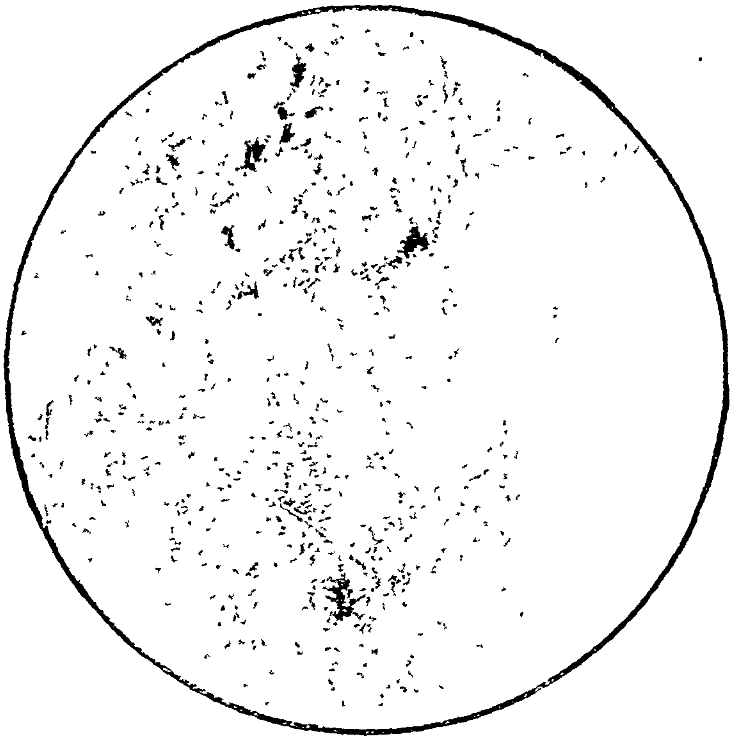

Fig. 3.—Photograph of gross specimen showing its shaggy, coarse, hair-like appearance.

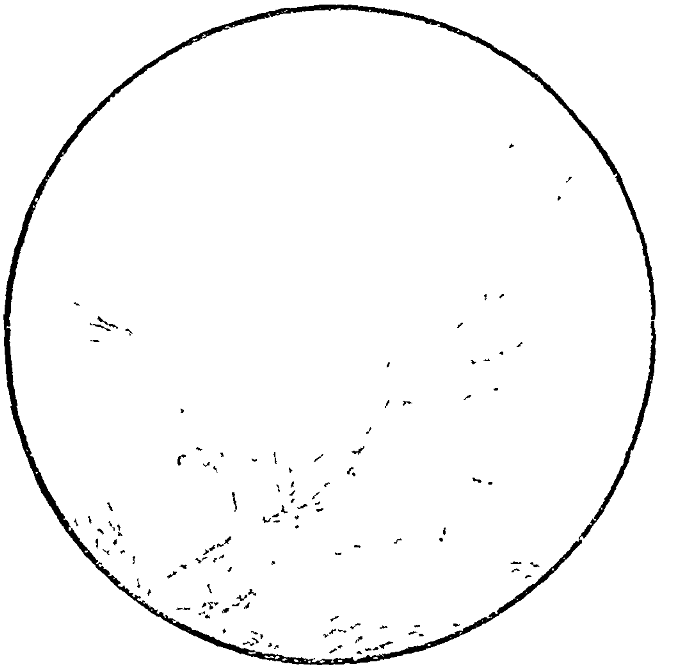

Fig. 4.—The fungus under a low magnification, and the central large stem containing numerous smaller branches is well demonstrated.

It appears, therefore, from this partially successful experiment that a high dilution is necessary and that the products of the tannery inhibited the fungus. It remains to explain the universal disappearance of the *Leptomitus* when cultivated *in vitro*. Either the fungus exhausts its own nutriment and in a very short time ceases to grow or else, which seems more probable, some of the products of growth are toxic to the fungus, and its reproduction ceases on account of a species of autointoxication. We believe that both of these conditions can be met successfully, and if we are able to secure any more of the fungus we propose to treat it by continuous irrigation with diluted distillery waste, allowing the material constantly to siphon into the jar and overflow. In this way we could reproduce very closely artificially the conditions in which the fungus is found in the streams. One of the interesting phases of the joint association of this fungus and distillery waste in streams is the destruction of fish. This generally appears to kill only a certain proportion of fish and not to destroy all of those in the stream. While we have obtained dead fish and subjected them to autopsy, we have been unable to determine the cause of their death. Whether it is due to poisonous products of the fungus or its growth within or on some part of the fish, we have been unable to ascertain, but that it is due to the distillery waste in this instance can scarcely be doubted, as experiments *in vitro* with the tannery waste on living fish have been without result.

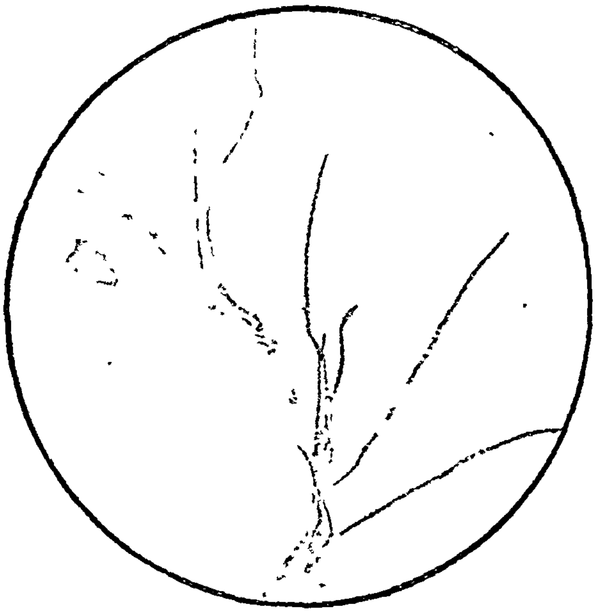

Fig. 5.—This shows a specimen dried and stained by hematoxylin. The dichotomous branching from the parent stem is clearly seen.

THE SAPROLEGNIÆ

According to Pringsheim[2] the *Saprolegniæ* form a subdivision of the *Algæ*. They are often found in water attached to animal or vegetable materials forming growths radiating from all sides of their host, their straight or branched hyphæ often penetrating deeply into the material, such as a stick or stone. Their protoplasm does not contain any chlorophyl or starch. Pringsheim thinks that they belong to the *Algæ* since they form spore-swarms, and no true moulds do this, and the formation of generative cells and the alternating sexual and asexual generation places them in near relationship to the *Vaucheriæ* and *Confervæ*.

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2. Jahrbucher fur wissenschaftliche Botanik, Berlin, 1858., I, 284.

As mentioned above the *Saprolegniæ* have a double cycle of development; a sexual and an asexual generation. The asexual growth begins by one of the hyphæ cutting itself off from the main stem by transverse fission and forming the so-called mother cell of the swarm of spores. The protoplasm divides into a large number of spores, which soon escape from the sporangium. Another hypha grows from the emptied spore-sac, and so the growth progresses. The spores are motile and have cilia which propel them through the water.

The most important part of the sexual apparatus of the *Saprolegniæ* consists in the female sexual organ, or the oögonium, which forms the oöspores. These oögonia are developed from special branches which grow from the sides of the main hyphæ, and are later cut off and form the female organ. Certain clear spots appear in the protoplasm and the wall later is absorbed at these points and these orifices admit the spermatozoa.

Coincident with the changes just described a gradual separation of the contents of the oögonium takes place, which results in the formation of a number of masses of protoplasm which form the ova ready for fertilization. The protoplasm forms itself into globular shapes which form the daughter cells of the structure. In some of the forms of *Saprolegniæ* branches grow out from the stalk of the oögonium, which grow around and even cling to the outside of the female sexual organ. These branches are called antheridia, and they penetrate the perforations in the wall of the oögonium and probably fertilize the immature ova by means of spermatozoa. These spermatozoa are embedded in the antheridia, surrounded by a mucoid material: after they have entered the protoplasm of the female element they appear as fine refractive bodies which soon mix with the substance of the protoplasm of the female element. Following this act the oöspores are formed which are the lasting seeds of this species.

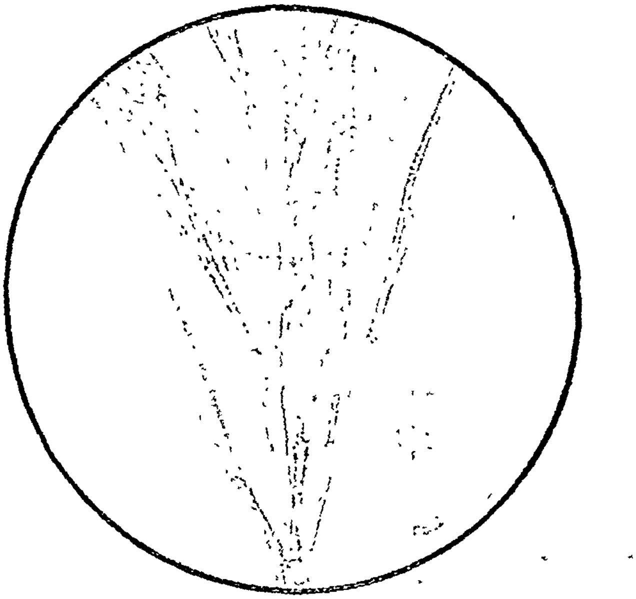

Fig 6.—This shows the branching end filaments when photographed from a fresh specimen.

In some species of *Saprolegniæ* such as *Saprolegnia ferox*, these antheridia are not formed, and the spermatozoa are derived from egg-shaped cells which form at the end of hyphæ. A large number of small motile branches which rupture the mother cell become free later in the surrounding medium. They have cilia and are spermatozoa derived from these special antheridia. In summing up the characteristics of the *Saprolegniæ* the following résumé is given by Pringsheim:

"The *Saprolegniæ* are cryptogamic, colorless, parasitic water plants belonging to the division of the *Algæ*. The vegetative parts are formed from a single many-branched mycelium. Many spore-swarms form at the ends of the cut-off hyphæ, which spores have one or two cilia. Oögonia are formed from the thickened ends of short side branches which contain many openings. Antheridia are single-celled, and are formed by side branches from the stem of the oögonium. These antheridia contain many small rod-like spermatozoa. Oöspores are formed which later grow to hyphæ or form spore-swarms."

LEPTOMITUS LACTEUS

The organism which infected the stream is one of the *Saprolegniæ*, and belongs to the genus *Leptomitus*. Dr. Karl F. Kellerman, physiologist in charge in the Bureau of Plant Industry, U. S. Department of Agriculture, to whom we are indebted for a diagnosis, thinks that it is probably the *Leptomitus lacteus*, and a brief description of this organism is therefore in order.

The *Leptomitus lacteus* was first described by Agardh[3] in 1860, and later by Pringsheim[4] more thoroughly. According to this author this plant only occurs in the flowing water of small or large streams, occurring in winter as well as in summer. It forms either small or large masses of a dirty white material often spread over extensive areas. The filaments are often several inches long, and often cover the surface of the water, as well as every root or branch of a tree or large stone in the water. They form long, floating, slimy masses resembling wool spread over these various surfaces.

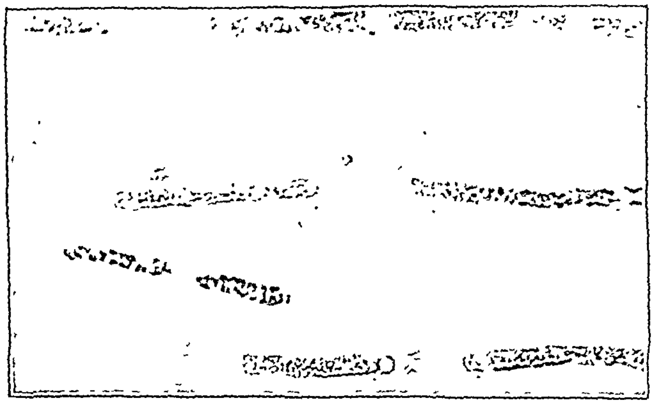

Fig. 7.—Two groups of three spores each, showing the granular protoplasm of the spores.

Under the microscope the plant shows dichotomous branching with slight constrictions which resemble joints. They are not true joints, however, and the entire plant is continuous and unicellular. Either one or several nuclei are often found near these constrictions. In young hyphæ the nucleus is homogeneous, but in old ones it may show several concentric layers. New branches are formed by the growth from the point or end of a branch or by side branches. These younger branches are smaller than the parent branch at first.

Fig. 8.—This shows the individual hyphæ under the high power. The constriction with the nucleus adjacent is quite apparent, and the granular protoplasm alternating with the clear hyaline contents of the filament is clearly indicated.

The formation of sporangia is accomplished by a swelling of one of the end hyphæ, its protoplasm increases, and by transverse fission it cuts itself off and forms a complete single cell. This soon forms a sporangium in which the protoplasm begins to heap up in a manner similar to that described above in the other *Saprolegniæ*. This process ends in the formation of

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[3] Syst. Alg., p. 50, Kützing, Species Alg. p. 155, Dilhoyn's British Confervæ, 1809, Tab. 79.

[4] Jahrbücher für wissenschaftliche Botanik, Berlin, 1858, ii, 205.

PROCTOCLYSIS IN THE TREATMENT OF PERITONITIS

J. B. MURPHY, M.D.
CHICAGO

The employment of proctoclysis in the treatment of the various forms of peritonitis, postoperative or otherwise, and general toxemic conditions, is a very simple procedure, but unless given with appreciation of the principles involved the solution will not be retained by the patient. The continuous method is by far the most scientific and successful. The retention of fluid in the colon depends entirely on its method of administration. Moderate distention is the normal condition of the large intestine. Its mucosa absorbs water with great rapidity. If it is hyperdistended it causes spasm and expulsion of material. The results obtained by this treatment have been so surprising that it was at first feared they were accidental, but they are now so uniform as to amount almost to a mathematical certainty when the details are carried out, which are based on our knowledge of the physiologic and pathologic conditions of septic absorption, local and constitutional immunity, and the elimination of toxins.

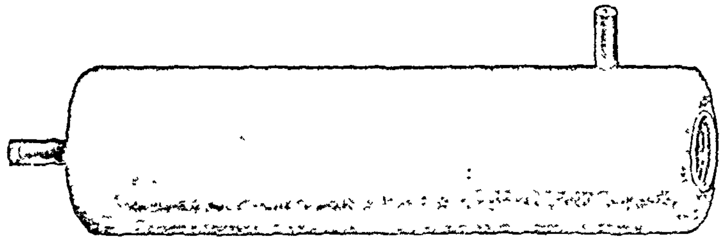

Fig. 1.—(One-third size.) Represents a metal heating chamber, block tin lined, with opening for electric heating unit and rubber tube connections for intake and outlet of saline solution.

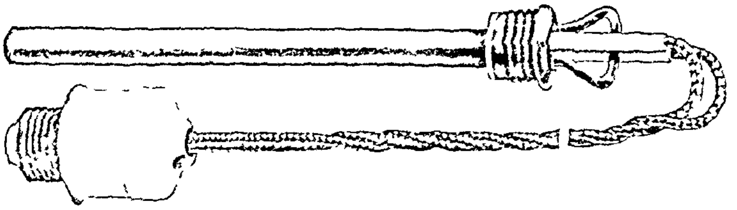

Fig. 2.—(One-third size.) Electric heating unit with socket connection and ten feet of cord. This unit can be used with either alternating or direct current 105 to 128 volts. See Fig. 7.

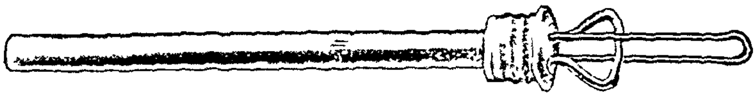

Fig. 3.—(One-third size.) Heat unit for alcohol or Bunsen burner flame with regulating piston. For use where electric current is not available. See Fig. 8.

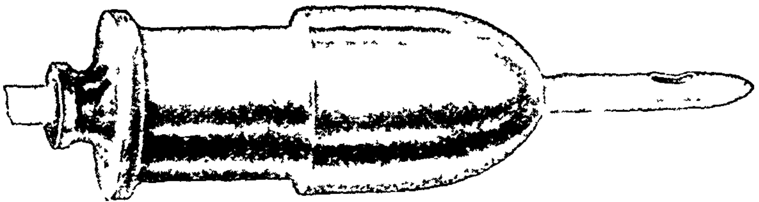

Fig. 4.—(One-half size of largest rectal tips.) Self retaining rectal tips on catheter showing how adjustment can be accomplished by merely drawing catheter through to desired length.

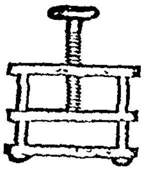

Fig. 5. — (One-half size.) Pinch cock used entirely to close flow or for drop method.

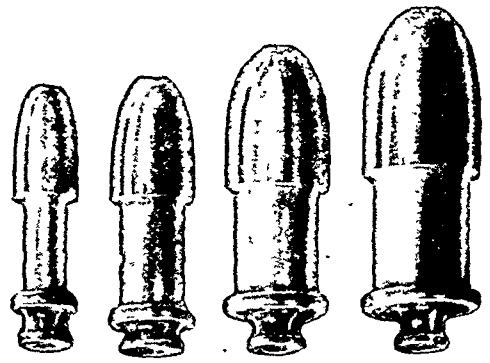

Fig. 6.—(One-third size.) Self-retaining rectal tips made in four sizes of hard rubber with opening through center to admit a soft rubber rectal catheter American size, No. 15. See Fig. 4.

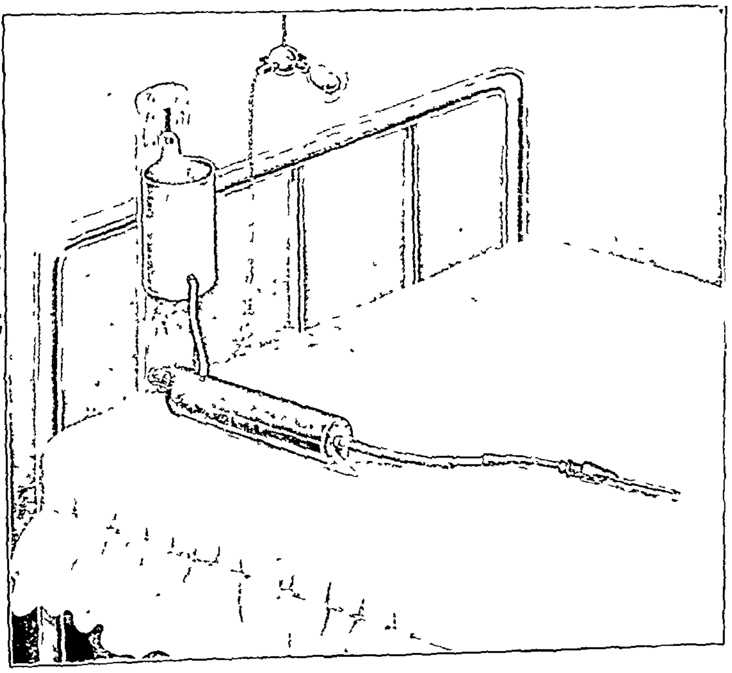

Fig. 7.—Electric heater in operation showing it properly connected. A short glass tube connects catheter to rubber tubing.

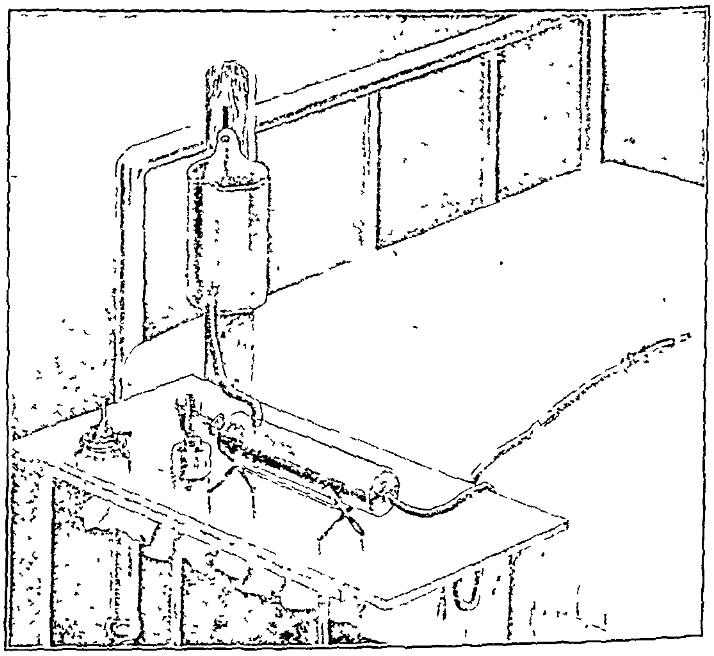

Fig. 8.—Alcohol or gas heater in operation, showing it properly connected. A short glass tube connects catheter to rubber tubing.

The apparatus in its simplest form consists of a fountain syringe or can with a large rubber tube attached, terminating in a vaginal hard rubber or glass tip flexed at an obtuse angle two inches from its tip, having numerous openings in its bulbed end, or in the apparatus made by W. H. Grady & Co., shown in Figure 9. The tip should be inserted into the rectum so that the angle fits closely to the sphincter, and the tube may then be bound firmly to the thigh with adhesive strips so that it may not be expelled, as shown in the illustration in Kelly and Noble's "Gynecology and Abdominal Surgery," volume II, page 415. The bag or can is suspended from the foot of the bed so that its base is six inches above the level of the patient's buttocks. Once the irrigating apparatus is thus placed, it need not be disturbed for several days, unless to increase or diminish the speed of influx. The solution, consisting of a dram each of sodium chlorid and calcium chlorid to the pint of water, is now placed in the reservoir and kept at a temperature of 100 F. by applied heat in the form of hot-water bags, thermolytes or an incasing can of hot water, or by means of the apparatus described further on. The quantity administered depends on the severity of the case, the age of the patient and other considerations that will suggest themselves in the particular instance. The average, however, is eighteen pints in twenty-four hours; that is, a pint and a half every two hours. A quantity less than eight pints is, I believe, of little value. In a child of 11 as much as thirty pints have been administered in twenty-four hours without escape of fluid. The control of the flow should never be governed by knots in the tube, forceps clamped thereon, or small openings in the tip. The larger tube with many openings is used to provide for a sudden return of the flow into the can when the patient strains, wishes to expel fluid or void gas. If there be constrictions in the tube the fluid can not return into the can, but passes into the bed linen.

A more elaborate form of apparatus is that devised by Dr. O. H. Elbrecht, of St. Louis, and manufactured by the Meier Dental Manufacturing Company of that city, and illustrated herein. Dr. Elbrecht describes his apparatus as follows:

> The proctoclysis heating apparatus illustrated was designed to meet a demand for an outfit that would heat saline and maintain it at a uniform temperature for proctoclysis. Many varieties of heating devices have been employed, but all are found wanting in that they fail to maintain a uniform temperature when heat is applied to the saline reservoir, for the saline is ever changing in amount as a result of absorption, and thus brings about ever changing temperatures. Then also there is a great loss of heat in the rubber tubing from the reservoir to the rectum. With most of the apparatus now in use the saline is cold by the time it enters the rectum. This makes the rectum irritable and less tolerant, and thus retards absorption; while if the saline is warm when discharged into the rectum it insures the greatest possible absorption and least discomfort.
>
> The rectal tips shown in Figure 6 are made in four sizes, are self-retaining and admit a rectal tube through their lumen, as shown in Figure 4 (largest size used here for sake of plain illustration), and thus the saline can be discharged several inches into the rectum. They prevent leakage and the larger sizes are used for patients with relaxed sphincters, as in advanced peritonitis, shock, severe toxemias, etc.
>
> Figure 5 shows a screw clamp which is placed on the rubber tubing behind glass tube connection to catheter, which permits easy disconnection for use of bed-pan and allows the rest of the apparatus to remain intact. It may be applied to any part of the tubing without disturbing the apparatus while in use, and is left wide open when the gravity method is used.
>
> The electric heating arrangement is the cleanest and the most satisfactory, and it requires little or no attention when once started and can be placed in the bed with the patient. The same results can be obtained, however, by using a Bunsen burner or alcohol lamp in connection with the heating chamber, which is then placed on a small table alongside of the bed. (Fig. 8.) This permits the outfit to be used where electricity is not available, as in rural districts or in homes where only gas is at hand. All the parts, including saline tablets, are assembled in a box, which makes the apparatus portable and ready for immediate use in emergencies.

Dr. Elbrecht's apparatus works admirably in adults. It can be used with the angled vaginal douche tip as illustrated in my article just as well as with the bulb tip that is inserted into the rectum, and I would say it works better than the bulb, as the latter occasionally produces irritation and the patient insists on having it removed. For the maintenance of uniform heat the Elbrecht apparatus fulfills all the indications. It does not, however, allow the fluid to flow back when the patient strains. The holder of the Elbrecht apparatus may be inserted into the ordinary fountain syringe can containing hot water, and that keeps it at a uniform temperature and moderately warm for a long period of time.

The proctoclysis is usually continued for three days; rarely as long as five or six. It is best administered in the Fowler position. The best plan is to place a pint and a half of the saline solution in the container every two hours. The container should be elevated sufficiently to allow this all to flow into the rectum in forty to sixty minutes, giving the rectum a period of rest from the influx of fresh fluid for approximately an hour before it flows again.

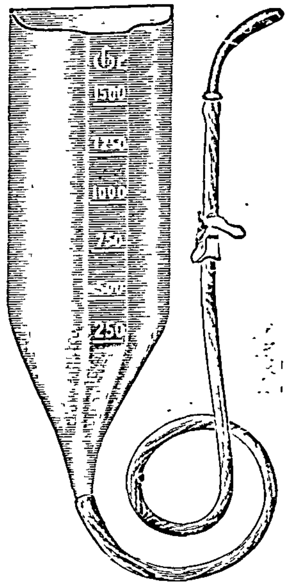

Fig. 9.—Proctoclysis apparatus consisting of fountain syringe, large rubber tube and vaginal hard rubber or glass tip.

It is surprising what a large quantity of fluid is taken up by the rectum and how little irritation and disturbance it produces, even in days of continuous use. If the patient is getting too much solution, after the third or fourth day he will show a slight edema of the ankles, hands and even of the face. Then it should be discontinued until his circulatory equilibrium is restored, when the treatment may be repeated if indicated.

In the toxemias of typhoid, scarlatina, and in the early days of pneumonia, before the heart has suffered from the intoxication, it appears to afford great relief. In the later stages of pneumonia it should be used with great caution.

I have been surprised in visiting hospitals to have my attention called to the proctoclysis treatment, in cases in which the patients were given six or eight ounces of fluid every two or three hours, or in which the fountain syringe was placed four to six feet above the level of the bed and the entire hydrostatic pressure thrown on the rectum, and the flow limited by forceps or other combination attached to the tube. In many of these hospitals the superintendent of nurses, the doctors and the nurses themselves complained of the fact that the patients did not retain the fluid. This was undoubtedly true, but the failure to retain it was because it was not properly administered. It should never have a headway of more than fifteen inches hydrostatic pressure, and it gives the best and most uniform results at four to seven inches.

The illustrations show the angle at which the hard rubber tube should be flexed to prevent its pressure

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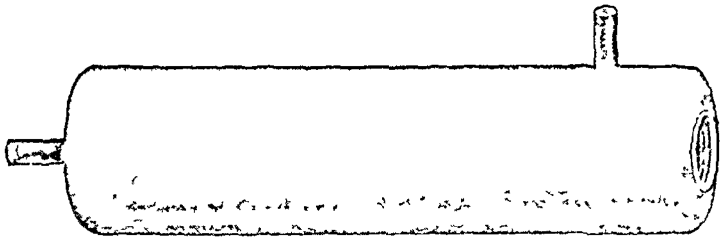

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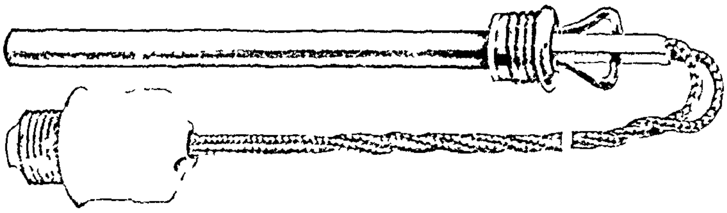

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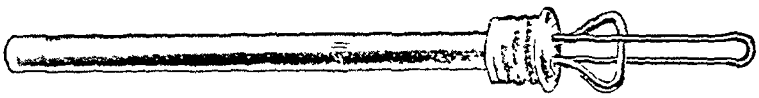

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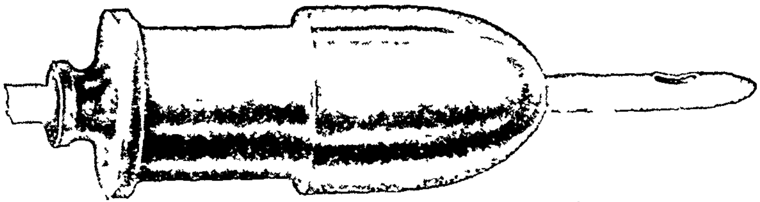

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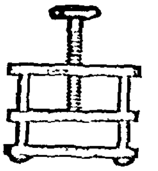

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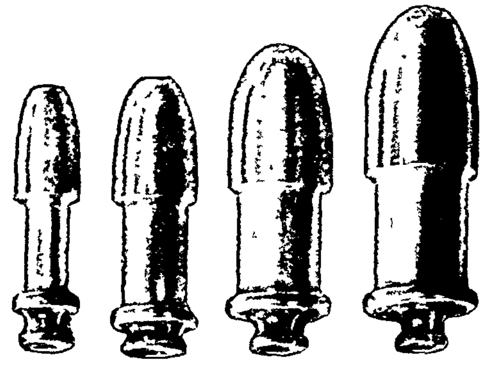

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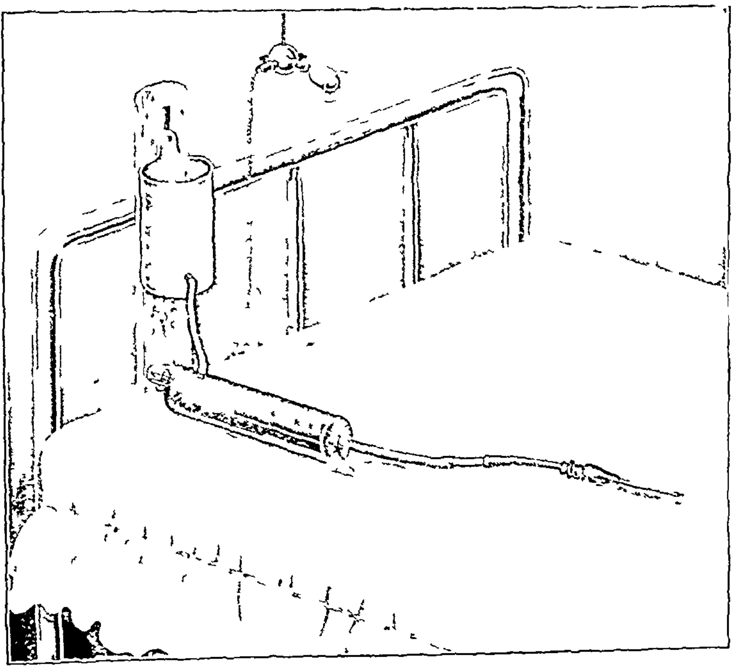
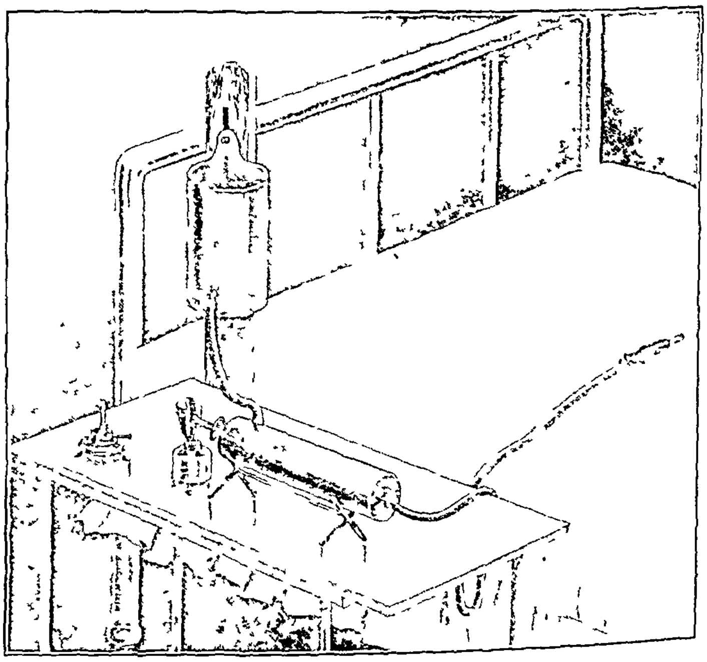


Fig. 7.—Electric heater in operation showing it properly connected. A short glass tube connects catheter to rubber tubing.



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The apparatus shown in Figure 2 is arranged for hot saline solution, and in Figure 3, a warm solution should be used in the upper funnel.

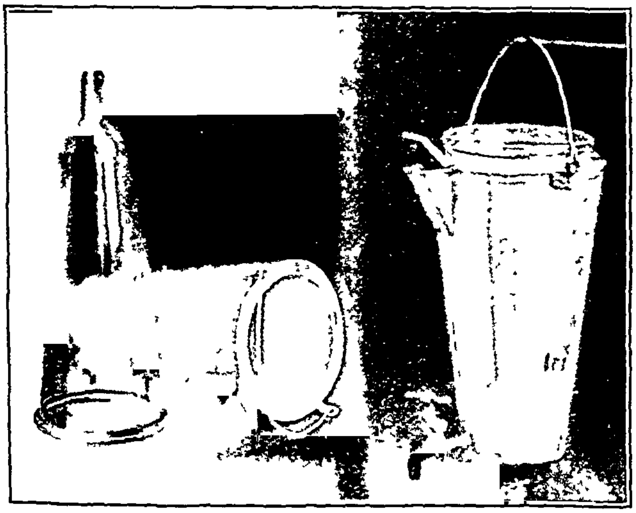
4900 Berlin Avenue.

AN APPARATUS TO KEEP ENTEROCLYSIS SOLUTIONS HOT

B. B WECHSLER, M D.
Obstetrician to Montefiore Hospital
PITTSBURG, PA.

This illustration shows an apparatus devised to keep at a proper temperature the solution for enteroclysis given by the Murphy drop method. This is difficult to accomplish by the usual method.

The apparatus consists of a glass irrigator encased in a jacket or nest made of copper for the outer wall and tin for the inner wall, having a space of half an inch between the outer and inner walls. An opening at the top fitted with an air-tight lid permits the filling of the jacket with hot water, and a stop-cock at the base permits its removal when cold. The jacket is supplied with a handle for its support.



On the left, the glass irrigator and the jacket; on the right, the apparatus ready to use.

The irrigator protrudes about an inch at the base of the jacket, where the connection can be made. The apparatus is covered with a sterile towel when ready to be used.

Tests at the Montefiore Hospital of Pittsburg, Pa., showed the apparatus to work satisfactorily in every respect. The solution is put into the irrigator at a temperature of 130 F. and hot water used as the heating medium. After three and one-half hours the solution is still at about 110 F.

1401 Fifth Avenue.

Chorea Minor.—Forssner leans to the generally accepted opinion that the symptom complex of chorea minor may be caused by various infections and possibly also other noxious influences The results of his observations speak in favor of the tendency of the disease to attack especially individuals of feeble constitution. Many of those who in childhood suffered from chorea minor later acquire numerous chronic diseases.—*Hygiea Festband.*

DISLOCATION OF THE KNEE AND DISLOCATION OF THE FOOT

WALTER D. WISE, M D.
BALTIMORE

A case of anterior dislocation of the knee and a case of backward subastragaloid dislocation of the foot with fracture of the astragalus were both seen at the Baltimore City Hospital in the service of Dr. A. C. Harrison, and are reported because of the rarity of the conditions.

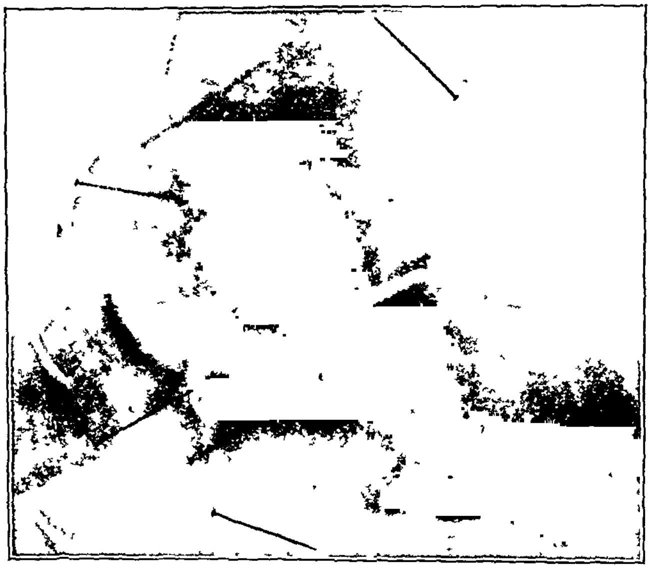


Fig 1.—Dislocation of the astragaloscaphoid joint and fracture of the posterior part of the astragalus.

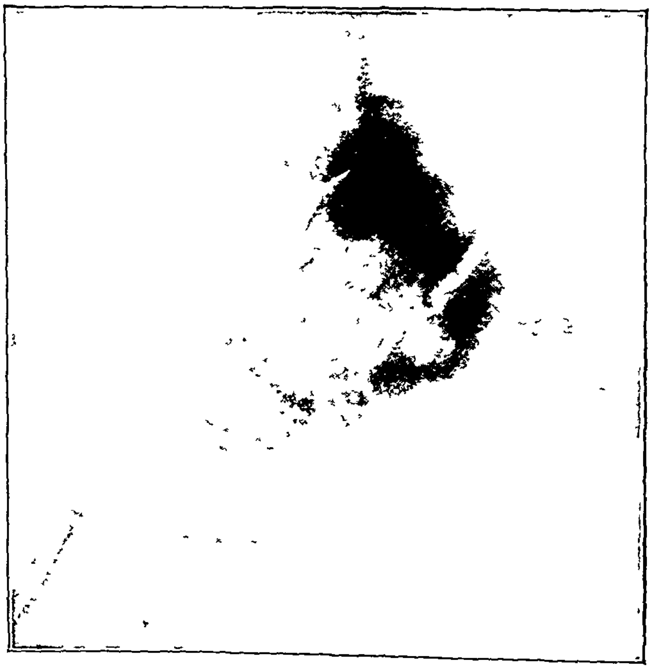


Fig 2—Dislocation reduced

Dislocations of the knee compose less than 2 per cent. of all dislocations. Of these about one-half are of the forward variety, and 20 per cent. of this type are compound. Up to this time there have been reported 270 cases of knee dislocations including all varieties, 113 of these being of the anterior type, this making the one hundred and fourteenth case to be reported.

Subastragaloid dislocations are even much more rare than dislocations of the knee, there being in the literature 86 cases. Of these 50 have been inward, 21 outward, 8 anterior and 7 posterior, this making the eighth case of posterior subastragaloid dislocation of the foot to be reported.

Case 1.—*History.*—The patient, William W., aged 47, was sent to the hospital July 31 by Dr. K. While the patient was unharnessing a horse in a stable in the country, the animal had become frightened and had run out of the door. In his attempt to catch it, the patient stepped in a ditch, sliding down an incline, throwing his body forward, hyperextending his right leg so that his right foot was turned up on his left thigh. The leg was straightened out and a side splint put on and the patient sent to the hospital. The leg was *said to be* fractured, and the deformity made the diagnosis appear to be *a plausible one without an examination,* so the patient was anesthetized.

Examination.—The limb was extended and the lateral axis about normal, but the leg was on a plane anterior to the thigh, and the lower extremity of the femur could be plainly felt in the popliteal space. The quadriceps extensor was lax, the patella was freely movable and seemed to fall back into a large space.

Treatment and Result.—The diagnosis of an anterior dislocation of the knee could readily be made, and the reduction was easily brought about by extension and direct pressure on the femur and tibia, pushing the former forward and the latter downward and backward. A plaster cast from the upper part of the thigh to the foot was applied and allowed to remain on until September 10, a period of six weeks. The cast was then removed, a tight bandage applied, and gradual use of the leg begun. On October 4 the patient was discharged walking normally. A radiograph taken after the dislocation was reduced showed no fracture and the leg in normal position.

Case 2.—*History.*—The patient, W. P. B., aged 33, was a brakeman on the Baltimore and Ohio railroad. This man was admitted to the hospital August 29. He had fallen from the top of a freight-car, striking on his feet. He felt the right foot give way, and was unable on account of pain to stand on it after that time.

Examination.—The foot was much swollen, very tender to the touch. The front part of the foot was shortened and showed in the midtarsal region a marked prominence, which was recognized as the head of the astragalus. An *x*-ray photograph (Fig. 1), showed a dislocation of the astragaloscaphoid joint with the head of the astragalus riding on the upper surface of the scaphoid, and a fracture of the posterior part of the astragalus, probably the external tubercle of the posterior surface to which is attached the posterior fasciculus of the external lateral ligament. Through the neck of the astragalus there was noted an incomplete seam fracture.

Treatment and Result.—Under anesthesia the dislocation was reduced without material difficulty by making direct pressure on the head of the astragalus, and at the same time drawing the anterior part of the foot strongly forward. The foot and leg were then encased in a snugly fitting plaster cast. A second *x*-ray photograph (Fig. 2) showed the dislocation reduced, and the fracture in satisfactory position. The patient was discharged October 4 with a very satisfactory result.

31 East North Avenue.

The Treatment of Soft Chancre and Its Glandular Complications with Copper Salts.—Almkvist believes that the amidoacetate and lactate of copper have proved themselves more effective in soft chancre and its glandular complications than any other method which can be used in the ambulatory treatment of patients. The copper salts mentioned differ from the copper salts previously tried in this treatment by the fact that they do not precipitate proteins.

EXPERIMENTAL LUNG ANTHRACOSIS

PRELIMINARY NOTE

LEWIS SAYRE MACE, M.D.
SAN FRANCISCO

The intestinal origin of lung anthracosis was suggested in 1862 by Villaret,[1] but denied in 1885 by Arnold,[2] who asserted that the small amount of absorption which he had observed following the feeding of charcoal emulsions was not sufficient evidence on which to accept this theory.

In December, 1905, appeared the first of a series of articles by Van Steenburg and Grysez[3] of Calmette's laboratory, in which they showed that particles of carbon when injected into the stomach or peritoneal cavity of adult animals were promptly absorbed by the lymph ducts of the mesentery and diaphragm, carried through the thorax to the veins returning to the right heart and finally deposited in the lungs. It was noted that with young animals this result was not obtained.

Following the work of Calmette, Van Steenburg, Grysez, Sommerville[4] and others, Petit[5] reported the results of his experiments with six children dying of tuberculosis and other diseases. To these he administered charcoal through a stomach tube and found on autopsy a more or less general anthracosis in the four who suffered from tuberculosis. He concluded that the presence of tuberculous infection rendered the subject especially liable to intestinally borne anthracosis.

On the contrary, Beitzke,[6] Cohn[7] and Schultz[8] repeated the experiments of Calmette and his associates without confirming their results. They found that foreign matter injected into the stomach or peritoneal cavity was, in fact, taken up by the lymphatics, but that it was deposited almost entirely in the liver and spleen. Occasionally, it is true, they observed a pulmonary deposit, but this they attributed to the presence of a spontaneous anthracosis, which occurs in at least 10 per cent. of adult laboratory animals. To this fact or to accidental inhalation during feeding experiments they attributed the results of the French observers.

These contradictory results mean that this subject, so important in considering the origin of tuberculosis and other infections, is still an open one. I have therefore tried to devise methods which should eliminate the errors of former experimenters.

Work with charcoal or any black substance was soon discontinued, as it was found, as Beitzke and others had asserted, that a number of control animals showed the presence of a spontaneous black or gray deposit.

What was needed was a substance, not black, which should be easily recognizable on account of its contrasting color, non-toxic and not affected by the body fluids.

Ultramarine blue, one of the most stable of the blue, green or violet coloring matters, seemed to fulfill these requirements. It is chemically a very inert substance and is affected only by the strongest reagents. No substance resembling it could possibly be present as a spontaneous deposit, and its color is easily recognized on autopsy, which is not true of the red or yellow pigments.

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[1] Villaret: Cas rare d'anthracose suivi de quelques considerations physiologiques et pathologiques, Paris, 1862

[2] Arnold: Nebersuchung über Staub-Inhalation und Staub-Metastase, Leipsic, 1885.

[3] Van Steenburg and Grysez: Ann d l'Inst. Pasteur, xix, 786.

[4] Van Steenburg and Sommerville: Presse méd., xiv, No. 61.

[5] Petit: Presse méd., xiv, No. 82.

[6] Beitzke: Source of Anthracosis of the Lungs, Virchow's Arch. f. Path. Anat., clxxxvii, No. 1.

[7] Cohn: Ber. klin. Wchnschr. xliii, No. 45.

[8] Schultz: München. med. Wchnschr., liii, No. 35.

This substance was mixed with milk and, after sterilizing, 5 c.c. of the suspension were injected into the peritoneal cavity of guinea-pigs and the animals killed from five hours to twenty-one days later.

On account of the frequent presence of a spontaneous deposit of insoluble matter in the lungs of animals and the uncertainty which on that account might follow a microscopic examination of the tissues, a deposit sufficient for macroscopic recognition was deemed necessary for a definite conclusion.

I shall not in this preliminary notice give all the details of these experiments. The results do not differ materially from those obtained by Beitzke, except that the deposit, the color of which precluded confusion with a natural anthracosis, did not appear to extend beyond the lymph glands.

The blue matter was regularly taken up by the lymphatics of the mesentery and of the diaphragm. The network of glands surrounding the spleen and the liver was heavily loaded, although none could be observed on section of these organs. The diaphragm was within a few hours colored blue and the lymph ducts of the anterior and posterior mediastinum, as well as the glands lying beneath the sternum, were colored blue and could be traced to the root of the neck.

The bronchial glands were in some cases stained blue and in others not. The lungs often showed a peculiar mottled appearance, but this could not be identified as due to the ultramarine blue.

The staining of the bronchial glands may perhaps indicate that the substance has been reabsorbed from the lungs, especially as the larger lymph vessels of the thorax were shown to be conveying the substance to the veins returning to the right heart, but it may also indicate merely that on account of abnormalities in the lymph ducts a closer relationship between the anterior and posterior ducts and the bronchial glands existed in these particular animals.

It was remarkable that, considering the large amount of ultramarine injected, so little could be recognized after it had left the abdomen. It regularly disappeared until finally, except for a few stained bronchial glands and a blue deposit coloring the diaphragm, none could be found.

This may be due to the relatively large dilution of the solid matter by the body fluids or to its rapid elimination or to chemical alteration of the substance after prolonged contact with the body fluids.

I have therefore decided to repeat the experiments, using a stable substance which can not possibly form the basis of a natural anthracosis and which can be easily separated unchanged and recognized.

Talc seems ideal for this purpose. Unchanged by high temperatures and extremely stable chemically, its separation from the organs becomes a matter of merely following out a certain technic and its recognition is simple and absolute.

By injecting weighed amounts of talc into the peritoneal cavity or alimentary canal and later separating the substance from the various organs and excreta by combustion, treatment with acids, etc., the amount of the deposit occurring in the lungs and other organs, as well as the amount eliminated, can be definitely settled. The result of these experiments will form the basis of a later paper.

240 Stockton Street.

A CASE OF OVARIAN PREGNANCY

N. S. MAC DONALD, M.D.
HANCOCK, MICH.

The following condition is reported mainly on account of its comparative rarity and to substantiate further the claim made by many authorities that in certain cases of ectopic pregnancy rupturing into the free abdominal cavity the patient may recover if left alone.

History.—On March 27, 1908, was called to see a primipara, who presented the usual characteristic symptoms of ruptured extrauterine pregnancy. She had missed one period. A hot saline enema was given and the patient was removed to St. Joseph's hospital.

Operation.—Four hours later, her condition having improved somewhat, the abdomen was opened under ether anesthesia and found filled with clotted blood, but nowhere were there signs of active hemorrhage. On passing the hand into the cul-de-sac and along both tubes, the only unusual thing noted was that the right ovary seemed to be somewhat enlarged, of soft consistency and collapsible. On bringing the ovary into the wound it was found to be cup-shaped, of about three times normal size and hollowed out from above to the degree that only a thin layer of ovarian tissue remained to form the wall. The cavity within the ovary contained a small clot, after the removal of which slight oozing was noticeable. The ovary was removed on principle, the clots washed out and the abdominal cavity filled with hot saline solution previous to closure.

Result.—The patient made a good recovery and left the hospital within three weeks.

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A SUGGESTION FOR MORE READILY DETERMINING INJURIES OF THE URETER DURING OPERATION

HENRY DAWSON FURNISS, M.D.
NEW YORK

Having within the past year been called on to use the cystoscope on three patients with injured ureters, it occurred to me that the following method might be of assistance in detecting these injuries at the time of operation. The surest method is to pass bougies or catheters into the ureters, but many times this is impracticable, both on account of conditions presented by the patient, and lack of experience on the part of the operator. Often the ureter may be cut, the cut portion inspected, and then there be doubt as to its identity. It is very easy to give a patient methylene blue by mouth before operation, or to inject into the gluteal muscles at the time of operation 20 minims of a 0.4 per cent. aqueous solution of indigo-carmine. These drugs will so color the urine that, should the ureter be cut and there be any leakage from it, the colored solution would be promptly recognized. If the ureter were cut on the distal side of a clamp or ligature, there might be enough discoloration so that it could then be recognized. It is fully realized that many injuries may occur to the ureter in which this procedure would be of no account, but it is so simple, and would at times be of such help, that I think it should be used often.

393 West End Avenue.

Macular and Perimacular Hemianopic Scotoma Following Knife Wound of the Occipital Lobe.—Henschen reports, in *Hygiea Festband*, a case of limited traumatic lesion of the occipital lobe causing a macular scotoma. He holds that the case proves that the macula has a distinct and limited center in the occipital lobe, which center he would designate as a *cortical retina*.

black from the stasis of the blood that, had there been minute infarcts or infectious emboli, it is extremely questionable whether they could have been demonstrated; at any rate no such pathologic condition could be positively shown. A drain was inserted into the kidney and retained in place by three plain catgut sutures, the organ replaced and the perirenal pouch drained.

Postoperative History.—The patient reacted nicely from the operation, and the wound healed kindly, although there was only partial subsidence of her symptoms. Although the bladder condition was treated most actively, yet it only grew worse; in fact, the patient did not tolerate at all any injections or irrigations of any sort. The application to the bladder of any of the silver preparations seemed only to aggravate the condition. After a period of two weeks her temperature rose and her pulse increased in frequency and became very weak. She soon developed uremic symptoms and died about three weeks after the operation.

In this case it is a question whether nephrotomy of the other kidney would have relieved the patient. In my opinion it would not, for I believe that she was generally septic, and that the right kidney was no more involved than the liver or bone-marrow. The fact that the bladder was so intolerant to the silver salts is suggestive, in my experience, of tuberculosis of the bladder. Dr Trimble, however, found only colon bacillus and the staphylococcus from the bladder, and also found the same organisms in the cultures he made from the body of the kidney at the time of the operation. Primarily, the history of the case points to an infection of the kidney, but the symptoms were those of a kidney stone.

The third condition I wish to discuss is that of an ascending pyonephrosis with infection of the kidney substance and cortex. It is exemplified in that of the following case:

Case 3.—*History.*—C. P. C., a physician, aged 56, for some years had passed gravel and had suffered at these times with pain in the region of both the right and left kidney. He had an old cystitis. Recently he was seized with sudden, severe pain in the region of the left kidney, and after forty-eight hours passed a small gravel, attended with pus and blood in the urine. He improved slightly, but on the fifth day had a sudden chill, the temperature rising to 103; the pain in region of the left loin was severe and constant. The pulse was rapid and weak, 98 to 115. There was a cold perspiration and a slightly urinous odor to the breath. On the following morning the temperature was again above 103. A consultation was held with Dr. Taylor and Dr. Binnie and an operation advised. The *x*-ray gave a shadow in the region of the left kidney which was thought to be a stone.

Operation.—On the following morning, June 14, 1907, at Agnew Hospital, the left kidney was exposed through a long incision in the loin. Manipulation was difficult on account of the extreme amount of fat, the patient's failure to take an anesthetic properly and his extremely pendulous abdomen. On the kidney being incised a rather profuse hemorrhage was encountered and several ounces of fetid blood, pus and urine mixed together was evacuated. The odor of this was very offensive. A large dressed-drainage-tube was fastened into the pelvis of the kidney; the wound was properly closed, and the perirenal pouch also drained.

Postoperative History.—Recovery was slow but uneventful. The patient was seen Sept. 10, 1907, when the wound had completely healed; he had recovered his normal weight and expressed himself as being in the best of health.

The concluding case in this series which I wish to report was one seen in conjunction with Dr. John Outland.

Case 4.—*History.*—G. E. M., a strong, robust farmer, Salina, Kansas, had had within the past year two atttacks of sharp, severe, sudden pain in the region of the left kidney, radiating into the loin and left testicle. These attacks came on suddenly at intervals of more than a month, and were so severe that they required large doses of morphin to relieve him. He had never passed any gravel, nor was there any appreciable change in the character of the urine. After each of these attacks the patient complained of a persistent soreness and tenderness on pressure in the left kidney region. Twenty-four hours after the last attack he came to the hospital. At that time his temperature was about 100, his pulse 90, respiration 20. There was pain in the region of the left kidney, and considerable rigidity of the left rectus muscle. He required several hypodermic injections of morphin before it subsided. An *x*-ray picture was taken, which apparently showed a small stone that was evident on both the negatives taken. The effort of going to the doctor's office started another attack of this renal colic; and the patient was given a hypodermic injection before he was able to return to the hospital.

Operation.—Owing to the fatness of the man, it was necessary to make rather a large incision. The kidney was freed and partially delivered through the incision. It was opened its entire length but no stone was found. There was, however, a small roughened, apparently calcareous area about the size of a buckshot at the apex of one of the pyramids. This was scraped away with the finger. It could not, however, be said to be a renal stone, but was made up of fibrous connective tissue. A close examination of this fragment convinces me that it was one of the "fibrous calculi" recently reported by Gage and Beal.[1] The kidney and perirenal pouch were also drained in this case. There has been no return of the symptoms.

This last case, like the others, was attended with very great pain, although the "calculus," if it could be called such, was not of such a nature as to lacerate the kidney or obstruct the ureter. If we can accept the opinion of Rainey, it was a stone in the process of formation before the fibrin or colloid of kidney necrosis had become infiltrated completely with urinary salts. But why in this case and the others detailed should pain have been so prominent a symptom? It is easy to conceive of a hard rough calculus becoming loosened and mechanically lacerating and obstructing the ureter. The latter condition might result, theoretically at least, from a "soft calculus" or obstruction from blood clot or pus, but in the cases here reported this explanation does not seem sufficient. In a hematogenous infection the process starts in the cortex and there is no chance for mechanical obstruction. Possibly infection beneath the capsule, with the inflammatory process thus confined, would explain the very great pain in these cases. Or is there an unknown chemical change—the result of a reaction between the urine and toxins produced by renal disease that accounts for it? The advocates of the chemical theory of disease have long suggested this; and until more information is at hand it seems worthy of consideration. Surely our findings at operation, and after autopsy, do not always satisfactorily explain these painful symptoms. We are beginning to discover that not all pain in the kidney is due to renal calculus or tuberculosis. This latter condition I have excluded from my discussion. Doubtless other pathologic conditions of the kidney also simulate renal stone.

Appendicitis, gallstones, gastric and duodenal ulcer have come in for their share of surgical attention, when a renal calculus only was at fault. But the four conditions mentioned, renal infarcts, hematogenous infection, ascending pyonephritis and "fibrous calculus," exemplified by the cases reported, are veritable kidney conditions that demand early and radical operation. Fortunately they respond just as surely to operation as does kidney stone.

603 Bryant Building.

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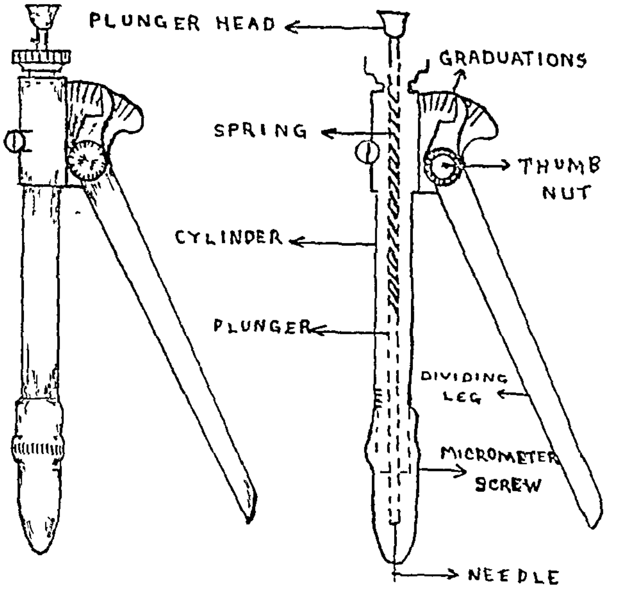
[1] Ann. Surg., September, 1908.

A NEW PRECISION ESTHESIOMETER *

ALFRED GORDON, M.D.
PHILADELPHIA

I have frequently observed that the usual test for sensations in organic or functional nervous diseases is not very reliable. Sometimes the results obtained by one man are diametrically opposite to those obtained by another man, and not infrequently it happens that the results obtained at one examination are different from those obtained at another. The reason appeared to me to lie in the degree of pressure exercised by each examiner while applying the end of a needle or esthesiometer to the patient's skin. For example, in examining two symmetrical limbs for touch and pain, it is difficult to retain in memory the exact amount of pressure produced on the skin of one limb while the needle is carried to the other limb. A slight or marked difference may happen, and inferences are drawn as to a loss or diminished sensation, and consequently errors of diagnosis are easily made.

Particularly when a necessity arises in a very delicate discrimination of pain sense, the needle or the sharp end of the ordinary esthesiometer can not serve its purpose.



Perspective and sectional views of the esthesiometer.

It occurred to me that when the sharp end of the needle could be applied to the skin always with the same degree of pressure the results would be uniform. With this end in view I devised the instrument here described.

One leg of an ordinary esthesiometer is represented by a cylinder in which is placed a spring reaching about half-way of the cylinder. The spring is continued by a solid body (plunger), to the lower end of which a needle is attached. A micrometer screw surrounds the lower part of the plunger with the needle. By pressure on the plunger head the needle is lowered and protrudes from the cylinder. When the latter is done, the micrometer screw is placed by rotatory movements at the desired distance so that only a certain length of the needle projects. The exact position of the micrometer is then indicated by division lines immediately above. In this manner, no matter how much pressure is brought on the plunger head, the same amount of needle will protrude and the same amount of pressure will be produced with the latter on the skin.

The instrument is light in weight, small and convenient for carrying in the vest pocket.

A STRANGE CASE OF NASAL OBSTRUCTION

F. L. ROGERS, M.D.
LONG BEACH, CALIF.

On June 22, 1908, a patient was referred to me for diagnosis and treatment.

History.—Girl, aged 9, of American birth and Italian parentage. Her general mental and physical development and family history were good She had had the usual diseases of childhood, including diphtheria at the age of 4, for which antitoxin was successfully used. A year later she was examined by a specialist on diseases of the nose and throat in New York City, and was successfully operated on for adenoids. The parents were then informed that there were other troubles, the nature of which they did not understand, which might be corrected when the child was older. From early infancy she had had a mucous discharge from the nose, which after the adenoidectomy, continued from the right side only.

Examination.—External examination revealed the right nostril blocked with thick, ropy mucous over the discharge of which she had no control, but there was no evidence of pus or other inflammatory waste products On irrigation of the nasal cavity no fluids passed into the pharynx on the right side and air inflation was equally unsuccessful in forcing an opening to the pharynx. The left side was normal. By digital post nasal examination a smooth, well-developed, bony wall of the consistency of and continuous with the nasal septum attached to the posterior border of the inner margin of the palate bone was found. This extended across and was united to the descending wing of the sphenoid on a plane with it and the posterior margin of the vomer, thus forming a firm wall perfectly closing that side of the nose. The secretion from all the accessory sinuses developed at her age, including maxillary, ethmoid and sphenoid, had their openings in front of this anomalous partition The nostril was otherwise normally developed and as the condition was considered congenital rather than acquired, we advised operation to restore the organ to normal function and to relieve the distressing nasal discharges.

Operation.—This was accomplished, through the nose, by the aid of a long handled nasal drill, a small, straight stiff-bladed nasal saw, and a Freer, angular bone-cutting nasal forceps Using the left forefinger in the posterior nares as a guide, and with the assistance of the anesthetist and my regular office assistant, the operation was accomplished in twenty minutes. Ether was the anesthetic used. The greatest care was exercised to leave no rough bony projections or ragged surfaces about the margins of the opening made and that every particle of the false partition wall was removed. Two sections of soft rubber catheter, one above the other, were introduced into the nose, freely perforated for drainage along their entire length and extending well into the pharynx. To these were attached two heavy braided silk ligatures connecting each end of the tubes through the mouth. Over the bridge of the nose and well onto the cheeks was applied a ⅝-inch strip of adhesive plaster to a buttonhole slit in which the projecting ends of the drainage tubes were anchored by ligature for further security.

After Treatment—Alkaline nasal irrigations, principally weak normal salt and Dobell's solutions were used daily for three weeks when the tubes were loose and the wound in the nose healed

Result.—The result is all that could be desired, as no difference in the caliber of the two sides can now be detected and all the former unpleasant symptoms are abated.

The case seemed sufficiently rare in the literature at my command to justify this report.

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* Instrument exhibited before the Philadelphia Neurological Society, January, 1909

New and Nonofficial Remedies

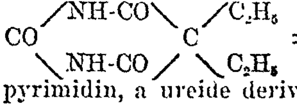
SINCE THE PUBLICATION OF THE BOOK "NEW AND NONOFFCIAL REMEDIES, 1909," THE FOLLOWING ARTICLES HAVE BEEN ACCEPTED BY THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION. THEIR ACCEPTANCE HAS BEEN BASED LARGELY ON EVIDENCE SUPPLIED BY THE MANUFACTURER OR HIS AGENT AND IN PART ON INVESTIGATION MADE BY OR UNDER THE DIRECTION OF THE COUNCIL. CRITICISMS AND CORRECTIONS TO AID IN THE REVISION OF THE MATTER BEFORE PUBLICATION IN THE BOOK ARE ASKED FOR.

THE COUNCIL DESIRES PHYSICIANS TO UNDERSTAND THAT THE ACCEPTANCE OF AN ARTICLE DOES NOT NECESSARILY MEAN A RECOMMENDATION, BUT THAT SO FAR AS KNOWN IT COMPLIES WITH THE RULES ADOPTED BY THE COUNCIL.

W. A. PUCKNER, SECRETARY.

DIETHYL-BARBITURIC ACID AND COMPOUNDS

DIETHYL-BARBITURIC ACID.—*Acidum diæthyl-barbituricum.*—Diethyl malonyl urea. Malo-urea. Diethyl-barbituric acid,



$$CO \begin{matrix} \diagup NH\text{-}CO \diagdown \\ \diagdown NH\text{-}CO \diagup \end{matrix} C \begin{matrix} \diagup C_2H_5 \\ \diagdown C_2H_5 \end{matrix}$$

$= C_8H_{12}O_3N_2$, is 2, 4, 6-trioxy-5-diethyl pyrimidin, a ureide derived from diethylmalonic acid, COOH.C$(C_2H_5)_2$.COOH, and urea, $CO(NH_2)_2$.

It may be prepared by the interaction of esters of diethylmalonic acid with urea in the presence of metallic alcoholates. (U. S. patent No. 782,739.) It is also obtained by condensation of diethylcyanacetic ester with urea by means of sodium alcoholate.

It is a white, crystalline powder, melting at about 188° C. (370.4° F.), odorless and faintly bitter. It is soluble in about 150 parts of cold water, and in about 12 parts of boiling water. It is quite soluble in ether, acetone and ethyl acetate; also slightly soluble in chloroform, petroleum benzin, acetic acid and amyl alcohol. It forms salts with alkalies which are soluble in water.

Prolonged heating with sodium carbonate solution liberates ammonia. Denninges' reagent produces a white precipitate; Millon's reagent produces in solution acidulated with nitric acid a precipitate soluble in an excess of the reagent.

Actions and Uses.—Diethyl-barbituric acid is quickly absorbed, especially when it is given in solution. In small doses it induces sleep apparently without any other effect. In larger doses the temperature falls and animals show marked trembling and restlessness in their sleep. In small doses it is a relatively safe hypnotic, but fatalities have followed its indiscriminate use.

It is used in simple insomnia, as well as in that accompanying hysteria, neurasthenia and mental disturbances.

Dosage.—0.3 to 1 Gm. (5 to 15 grains) in hot water, tea or milk, or, if in wafers or capsules, followed by a cupful of some warm liquid.

Proprietary Preparation:

VERONAL.—Veronalum.—A name applied to diethyl-barbituric acid.

Manufactured by Farbenfabriken, vorm. Friedr. Bayer & Co., Elberfeld, Germany, and E. Merck, Darmstadt. (Farbenfabriken of Elberfeld Co., New York, and Merck & Co., New York.) U. S. patent No. 782,739. U. S. trademark.

Veronal Tablets, 5 Grains.—Each tablet contains veronal 0.33 gm. (5 grains).

SODIUM DIETHYL-BARBITURATE.—*Sodii diæthyl-barbituras.*—Sodium diethylbarbiturate, Na $(C_8H_{11}O_3N_2)$ is the mono-sodium salt of diethyl-barbituric acid.

Sodium diethyl-barbiturate occurs as a white, crystalline powder. soluble in 5 parts of water at 15° C. and in about 2 parts of boiling water. The aqueous solution of the salt has a bitter alkaline taste.

The salt contains 11.18 per cent. sodium (Na) and should yield about 89 per cent. (theory requires 89.31 per cent.) dethyl-barbituric acid (JOURNAL, Jan. 23, 1909, vol. 52, p. 311).

Action and Uses.—The same as diethyl-barbituric acid, but claimed to act more rapidly on account of its greater solubility. Because of its solubility, administration by rectal injection and also subcutaneous injection has been proposed.

Dosage.—The same as diethyl-barbituric acid, which see. It should be administered in aqueous solution.

Proprietary Preparations:

MEDINAL.—A *name* applied to Sodium diethyl-barbiturate.

Manufactured by Chemische Fabrik auf Actien vorm E. Schering, Berlin, Germany (Schering & Glatz, New York). U. S. patent No. 780,241, 879,499. U. S. trademark applied for.

Medinal Tablets, 5 Grains.—Each tablet contains medinal 0.33 gm. (5 grains).

VERONAL-SODIUM.—A name applied to sodium diethyl barbiturate.

Manufactured by Farbenfabriken, vorm. Friedr. Bayer & Co., Elberfeld, Germany (Farbenfabriken of Elberfeld Co., New York.) U. S. patent and trademark. (See Veronal.)

BROVALOL. — Brovalol, $CH_3.CH(CH_3).CHBr.COO(C_{10}H_{17}) = C_{15}H_{27}O_2Br$ is the brom-isovaleric-acid ester of borneol. It contains 25.2 per cent. bromine.

Brovalol is obtained by esterification of borneol with bromisovaleric acid or its derivatives.

Brovalol is a colorless, oily liquid, having a slight aromatic odor. Under 10 mm. pressure it boils at 163° C. (325.4° F.). It is insoluble in water but soluble in alcohol, chloroform and ether.

Action and Uses.—Brovalol acts as an analeptic, antispastic and nervine. It is claimed to be well tolerated even in large doses and to possess greater sedative power than similar valeric acid derivatives, due to its bromine content.

Dosage.—0.25 to 0.75 Gm. (4 to 12 grains) several times a day. It is supplied only in capsules (pearls), each containing 0.25 Gm. (4 grains).

Manufactured by Chemische Fabrik auf Aktien (vorm. E. Schering), Berlin, Germany (Schering & Glatz, New York). U. S. patent and U. S. trademark applied for.

ZINC PERMANGANATE.—Zinci Permanganas.—Zinc Permanganate, $Zn(Mno_4)_2 + 6H_2O$ is the zinc salt of permanganic acid. It should contain not less than 90 per cent. of zinc permanganate.

Zinc permanganate occurs in dark brown, nearly black, lustrous, deliquescent crystals, or crystalline masses. It is readily soluble in water (1 in 3), generally leaving a slight residue. Aqueous solutions decompose in air, but are permanent if kept in well-closed bottles, protected from light. When heated slowly it loses water of crystallization (25.46 per cent.) and oxygen, leaving a residue of zinc manganite. If heated quickly it gives off pink vapors, or, more properly, a fine dust of manganese trioxid. Zinc permanganate gives up oxygen more easily than does the potassium salt, hence great care should be taken in bringing it in contact with easily oxidizable substances.

Zinc permanganate should be almost completely soluble in water. The color of the solution is discharged by alcohol, hydrogen sulphid, ferrous sulphate, oxalic acid, or hydrogen dioxid, especially if the solution is first rendered acid with sulphuric acid.

Tests.—If 1 gm. of the salt is dissolved in 50 Cc. of water and 5 Cc. of alcohol added, a colorless solution must be obtained after boiling and filtering; if a small part of the latter acidified with nitric acid is tested with silver nitrate T. S. for chlorid and with barium chlorid T. S. for sulphate, not more than traces of either should be indicated.

To estimate its purity, 0.1 to 0.2 gm. of substance is weighed, dissolved in water, filtered through asbestos, the filtrate acidulated with 5 Cc. dilute sulphuric-acid, warmed to about 60° C., treated with an excess of tenth-normal oxalic acid V. S., and the excess of oxalic acid determined by titration with N/10 potassium permanganate V. S. Each cubic centimenter of tenth-normal oxalic acid V. S. consumed, indicates, 0.0040842 gm. zinc permanganate, $Zn(MnO_4)_2 + 6.H_2O = 408.42$.

Action and Uses.—Zinc permanganate resembles the potassium salt in its oxidizing properties, but is more astringent. It is antiseptic. It is used chiefly in urethritis, either as an injection or as a urethral douche.

Dosage.—Locally 1 part to 4,000 (1 grain in 8 fluidounces). 1.3 gm. zinc permanganate is equal in permanganate content to 1 gm. potassium permanganate.

Non-Proprietary Preparations:

Zinc Permanganate, P-W-R.—Manufactured by the Powers-Weightman-Rosengarten Co., Philadelphia, Pa.

Zinc Permanganate, Merck.—Manufactured by E. Merck, Darmstadt, Germany (Merck & Co., New York).

Tablets Zinc Permanganate, 1 grain, Mulford.—Prepared by the H. K. Mulford Co., Philadelphia, Pa.

PHARMACEUTICAL PREPARATIONS ACCEPTED FOR N. N. R.

The following dosage forms of accepted proprietary articles have also been accepted for N. N. R.:

Agurin Tablets, 5 grains.
Acet-Theocin-Sodium Tablets, 4 grains.
Iodothyrin Tablets, 5 grains.
Novaspirin Tablets, 5 grains.
Veronal Tablets, 15 grains.
Piperazin Tablets, 16 grains.
Citarin Tablets, 15 grains.
Hedonal Tablets, 8 grains.
Sajodin Tablets, 8 grains.

ARTICLES ACCEPTED FOR N. N. R. APPENDIX.

Burroughs Wellcome & Co., London and New York.

*Tabloid Coffee Mint B-W & Co.**—Each tablet is said to contain: Sodium bicarbonate, 0.2 Gm. (3 grains); ammodium carbonate, 0.004 Gm. (1/16 grain); extract of coffee (obtained by extracting roasted coffee with water; the percolate is evaporated, dried and powdered), 0.032 Gm. (½ grain); cereum oxalate, 0.016 Gm. (¼ grain); oil of peppermint to flavor.

The Maltine Company, Brooklyn, N. Y.

Maltine.—A preparation essentially equivalent to Extractum Malti U. S. P. and containing 3.88 per cent. alcohol.

U. S. trademark No. 44,556.

Therapeutics

RESPIRATORY EDUCATION

Under the above title Dr. J. Madison Taylor, Philadelphia, in the *Dietetic and Hygienic Gazette,* February, 1909, urges a more careful consideration by the profession of the respiratory ability of patients who come for treatment.

It seems demonstrated that respiratory ability can be increased by exercise as surely as any part of the body can be muscularly developed, and Taylor believes that the chest never can attain its normal capacity unless encouraged. The crying of infants and young children is probably a physiologic necessity, and certainly tends to increase the respiratory ability. Older children, if well and so situated as to have the normal amount of outdoor exercise, undoubtedly play sufficiently hard to breathe properly. Still, it is of constant occurrence that the physician sees children of all ages, and especially in their early teens, who have an insufficient lung capacity. The shoulders droop, the anterior upper chest is more or less depressed, and the whole vitality of such children is far below normal.

Certainly the physician has not fulfilled his mission if he does not carefully examine every little patient who comes under his care to ascertain if the respiratory ability, in his opinion, is normal, and if not normal, to find the cause and remove it if possible. Such causes may be adenoids, improper clothing, improper ventilation in the bedroom, insufficient outdoor exercise, improper method of standing, walking, sitting and studying, and even the need of glasses for near work, as defective eyesight may cause a child to assume awkward positions in reading and studying, and, of course, the cause may be actual lesions of the lungs or heart.

It is not necessary to describe all the immediate and future disturbances, lesions and degenerations that may occur from improper and insufficient breathing, and when Taylor states that no part of the body can be properly developed or be in proper health with imperfect respiration, he states a truth. Fortunately, children up to the age of puberty can generally soon correct, by proper physical exercise, most of these respiratory disabilities, provided that serious spinal curvatures have not taken place and that no organic disease is present. And here it may be stated that spinal curvatures would be less frequently in evidence if children were taught to breathe properly.

In most cities there are admirable gymnasiums to which children with defective muscle ability and who have defective lung capacity can be sent to be properly developed under both medical and gymnastic supervision. However, not all children have the opportunity or the financial ability to take such special courses as are advisable, and the mothers should be told what is needed in the way of exercise, and the children should be taught how to perform the exercises needed to increase the chest capacity and the respiratory ability. Some of these exercises are described by Taylor in his article.

Mothers frequently make this serious error in dressing their growing girls. They either cause or permit too much constriction about the upper part of the chest. This is especially true of the early substitutes for corsets, the first corsets, and even some of the simple underwaists. Many and many a time one finds these so tight over the upper chest and over the developing breasts as to prevent normal growth and to obstruct proper inspiration. Such treatment of the growing girl is absolutely inexcusable.

It is only the orthopedic surgeon and the physicians who make many insurance examinations who realize that the majority of adults do not know how to respire properly. It sometimes takes several minutes to instruct an apparently normal, well, and even intelligent individual how to take his deepest breath and show, even incompletely, his respiratory capacity. Also, many and many an individual can not be taught, even at several sittings, how to fill his lungs properly, and it is a constant source of wonder that such persons can go through life breathing so insufficiently.

Although these individuals may live for years, most of them never look well, and they rarely act well. Most of their functions are imperfect, although perhaps sufficient for a quiet, uneventful life, provided no serious illness attacks them. Moreover, every such individual has his prospect of longevity impaired and his expectancy of life diminished, while the man, woman or child who properly respires will not have so many colds, will not have so many infections, and is less likely to develop tuberculosis.

Taylor says that in most persons there are areas of lungs never developed, and it is certainly true that after several weeks of respiratory exercise the lung capacity can be greatly increased, and this with almost every individual who has not been taught such exercises. Of course with older individuals, or if there has occurred any damage to any part of the thorax, the improvement in breathing may not be great. But this only emphasizes the necessity of teaching all children how to respire.

It is hardly necessary to state that all breathing under exercise should be done through the nose, as the air is thus warmed before entering the lungs, is rendered freer of dust and germs, and is taken in slowly enough to allow the chest to expand normally.

Taylor quotes the physiologists as recognizing the subdivisions of air in the lungs as : "(a) the tidal, that which enters the lungs during ordinary respiration; (b) the complemental, the air which can be forced in; (c) the reserve, the air that can be expelled during forced expiration; and (d) the residual, air that always remains in the alveoli or air spaces." The vital capacity is defined as the volume of air which can be "forcibly ejected by extreme expiration after a most complete inspiration."

Normal inspiration is shorter than normal expiration, and in teaching a patient to breathe Taylor advises that the inspiration should last three seconds and the expiration five seconds, and this should be gradually increased, second by second, until after some weeks twenty seconds are consumed in inspiration and twenty-eight in expiration, and he would have the full inspiration sustained for from two to ten seconds before exhaling. The number of respirations a minute normally vary from sixteen to twenty-four.

Taylor advises that in the beginning respiratory exercises should be taken while the patient is lying down, so as to start with thoroughly relaxed muscles. Later they should be done while standing, with the patient erect, the head thrown back, and sometimes with the hands clasped behind the back. His exact method can best be obtained from his own description.

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SATURDAY, APRIL 17, 1909

THE RELATION OF IODIN TO THE ACTIVITY OF THYROID PREPARATIONS

Struck by the similarity of the effects of iodin and thyroid in the treatment of goiter, Kocher, in 1895, suggested the desirability of examining the thyroid for iodin, but the tests made in Berne were negative. In the same year, however, Baumann, in Freiburg, discovered the presence of iodin in no inconsiderable amounts in the thyroid of man and other animals, but even now, over thirteen years later, we are still uncertain as to just what part the iodin plays in the physiologic activity and the therapeutic effects of the thyroid. Baumann, and Roos who first studied the action of the iodin-containing constituent of the thyroid, were of the opinion that the iodothyrin was the active principle of the thyroid gland, but there were many who did not accept this view and looked on the iodin as merely an injurious substance which the thyroid had removed from the circulating blood. Others pointed out that not all animals have iodin in their thyroids, yet removal of such iodin-free thyroids has just as serious effects as removal of thyroids that contain iodin, and therefore it would seem that a thyroid can be functionally active even when it contains no iodin.

This question of the relation of iodin to thyroid activity has practical as well as theoretical interest, for, if the therapeutic activity of a thyroid preparation is in direct proportion to the amount of iodin it contains, we have a ready method for standardizing such thyroid preparations for commercial purposes. As the amount of iodin in sheep thyroids varies greatly, depending not only on differences in the breed of sheep, but also on the place in which they have lived, and on the time of year, it is very necessary to know how closely the iodin content and the physiologic activity correspond, so that we may know whether to be content with giving our patients a certain number of grains of desiccated thyroid at a dose, or to demand a dosage varying according to the amount of iodin present in each preparation.

The method of study which has been in common use in determining the effect of thyroid preparations has depended on the fact that thyroid administration causes loss of weight and increased excretion of nitrogen in the urine. By this method, Roos found evidence that thyroid preparations with low iodin content produced less metabolic disturbance than did those more rich in iodin. Similar results obtained by Oswald, von Cyon, and Marine, added weight to the belief in the importance of the iodothyrin for the effects of thyroid feeding, but the methods used did not permit of any direct quantitative estimations.

Recently, Reid Hunt has elaborated a physiologic test for thyroid preparations which seems to permit of rather surprisingly accurate measurement. It is based on the fact that feeding of definite quantities of thyroid substance to mice increases very greatly the resistance of the animals to a certain poison, acetonitril, so that they can withstand many times the ordinarily fatal dose. In view of the fact that thyroid feeding has the opposite effect on rats, lowering their resistance to acetonitril, and that both mice and rats are made less resistant to morphin by thyroid, this test would seem to rest on a most uncertain foundation, and could hardly be expected to give either constant or reliable results. Nevertheless, large experience has convinced Hunt of its accuracy, and, obscure as the explanation of this influence of thyroid on mice may be, the results of its application to a number of important problems seem to be distinctly valuable. A study of the question of the dependence of physiologic activity on the iodin content of thyroid preparations is reported by Hunt and Seidell,[1] the results of which seem to be conclusively in the affirmative. With very few exceptions, the power of thyroid tissue to protect mice against acetonitril, or to render rats and mice more susceptible to morphin, closely parallels the iodin content. Indeed, by ascertaining the physiologic activity by this means it is possible to estimate with considerable accuracy the amount of iodin in a given thyroid preparation.

As thyroid tissue free from iodin, such as occurs in new-born infants and in the adult animals of some species, also possesses a small but distinct physiologic activity, it seems necessary to Hunt and Seidell to assume that the thyroid may possess a substance which is active independently of any iodin combination, but the activity of which is enhanced by the presence of iodin. Furthermore, when the iodin content of an animal's thyroid is increased by feeding iodids or iodoform, the physiologic activity of the gland increases in proportion to the amount of iodin it contains, indicating that the thyroid is able rapidly to convert iodin coming to it in the blood into the active iodin compound characteristic of the functionating thyroid.

PATHOLOGY AND HISTORY

Some interesting side-lights are being thrown on history through the growing recognition of the rôle that disease has played in human events. It is easy to understand that, in the past, imperfect knowledge of the nature and causes of disease has obscured the true significance of many serious affections and has led to mistaken conclusions. It would now be well for the historian, reviewing the events of the past, to make use of the knowledge of pathology that has been acquired in the last half-century. If the modern historian, with the aid of the pathology of to-day, does not succeed in changing the face of history, at least he can set the candle of another theory flickering in the haze of uncertainties that enshroud many a venerable historical mystery, and in some instances, perhaps, light the way to a probable solution. It has been suggested, for instance, that the decadence of Greece, which has been attributed to luxury and the instability of an overweening democracy, was largely influenced, if not directly caused, by the introduction of malaria into the Greek communities, as a consequence of some of the expeditions from Greece into countries where malaria existed.

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[1] Hygienic Laboratory Bulletin No. 47, United States Public Health and Marine-Hospital Service.

The version which has come down to us of the climax of many a tragic story of the past might be materially different if contemporary historians had possessed the key to pathology furnished by modern surgery. It might be interesting to speculate, for instance, on how history might have been modified if appendicitis had been as well known in ancient and medieval times as now. Thousands of persons in every large city must have died mysterious and inexplicable deaths from this disorder—deaths probably attributed in most cases to poison. After all, the story of appendicitis, if one has not the key to it, reads very much like that of poison. The symptoms develop suddenly, not long after a meal; there is apt to be intense pain; general peritonitis develops, and the abdominal tenderness indicates some intense irritant within, which, of course, would be thought to be the poison at work.

Among the victims of necessarily unrecognized appendicitis were, no doubt, many celebrated personages of history. Britannicus, the son of Claudius, for instance, who might have become Roman emperor, died rather suddenly under circumstances which suggested poison to the ancient historians, but which might tempt a modern physician to think of some abdominal condition due probably to appendicitis in the first place.

Extrauterine pregnancy, too, must have caused many mysterious deaths. In the same class of causes would be rupture of the stomach due to ulcer. This last may have been the cause of the sudden death of that beautiful Duchess of Orleans, commonly known as Madame, who was the subject of one of Bossuet's great funeral orations. In this case, as in many others, the violence of the symptoms gave rise to the suspicion of poisoning, and popular sympathy for the untimely fate of the victim, combined with popular detestation for her supposed enemies, clinched the diagnosis.

Again, it might light up many dark places in history could we project into the past some of our recently acquired knowledge of mental diseases. It may be that some pathologists and alienists have exaggerated the importance of the rôle that the aberrations of great men have played in history; yet there is no doubt that a sound contemporary knowledge of mental pathology might have furnished the clue to many now insoluble historical riddles.

Such are a few of the interesting hypotheses brought back from the dimmer byways of history, alongside of which stretch so many fruitful fields for conjecture. Those whose work lies in other provinces—physicians, for instance—may find profit and pleasure in a holiday spent in those fascinating, though speculative, fields.

THE NEED OF BETTER PROVISION FOR TREATMENT IN EARLY STAGES OF INSANITY

The attitude of the American public toward preventive medicine, until a rather recent date, might be expressed in a paraphrase of the celebrated remark of Pinckney: "Millions for cure, but not one cent for prevention." While something along preventive lines has been done in recent years, it has been in the way of isolated personal effort, and we do not believe that there has been as yet any widespread appreciation of the necessity for preventive rather than curative medicine, even among the more intelligent of the general public. Physicians, and others who come into contact with the sick, realize that there are at present two classes of patients whose plight is especially distressing, those with advanced tuberculosis, and those with incipient insanity.

It is undoubtedly true that some interest has recently been aroused regarding the problem of the insane or nearly insane. The remarkable work of Beers,[1] "A Mind That Found Itself," has stimulated public thought to some extent, a stimulation which is evidenced by the gift of Mr. Phipps to the Johns Hopkins University of a psychopathic institute. The formation, in Connecticut, of a "Society for Mental Hygiene" is another straw which shows the direction of the current of popular opinion. Still, it must be admitted that as yet there is no widespread public interest in the matter. Undoubtedly there should be, and equally without question every medical center should have its psychopathic hospital either in connection with a general hospital, or, if geographical situation permits of it, as part of one of the regular hospitals for the insane.

As Mosher[2] states, insane patients may be divided into two classes: those who become insane because of congenital defects in the nervous system, and those with relatively normal brains who break down under the stress and competition of modern life. Patients in the latter class frequently recover completely if treated early. The legal system of commitment operative in most states makes no distinction between these two

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[1] Reviewed in THE JOURNAL A. M. A., April 9, 1908, l. 1526 and 1546.

[2] Am. Jour. Insanity, January, 1909.

Fleming Breakey, clinical professor of dermatology and syphilology in the University of Michigan in celebration of the fiftieth anniversary of Dr. Breakey's entrance into the practice of medicine. Victor C. Vaughan presided as toastmaster. President James B. Angell spoke on "Dr. Breakey as a Teacher"; Dr. Ernest L. Shurly, Detroit, on "Dr. Breakey as a Friend;" Dr. James C. Willson, Flint, on "Dr. Breakey as a Classmate"; Dr. Meyer L. Heidingsfeld, Cincinnati, on "Dr. Breakey as a Dermatologist"; Dr. Junius A. Beal, regent of the university, on "Dr. Breakey as an Executive;" and Colonel Henry O. Dean, on "Dr. Breakey as a Soldier;" and the guest of honor made the last address of the evening. Dr. Breakey was presented with a silver loving-cup by his friends and colleagues of the Ann Arbor Medical Club, the Washtenaw County Medical Society, and the profession at large, the presentation speech being made by Dr. Charles B. de Nancrede. In the afternoon the senior class of the university presented Dr. Breakey with a gold-headed cane, Benjamin P. Winfell making the presentation speech.

MINNESOTA

Sanatorium Assured.—The bill of Senator Dunne for a municipal sanatorium and industrial school for crippled children at Phalen Park was passed by the house under suspension of rules. The bill carries with it an appropriation of $55,000. Citizens of St. Paul have contributed twenty-three acres of land for a site and $5,000 in cash.

Physician Convicted.—Dr. William C. Van Damme, Minneapolis, charged with criminal practice in connection with the now famous "suitcase baby," is said to have been found guilty and sentenced to imprisonment for five years in the penitentiary. This is said to have been the second time he has been convicted for an offense of a similar nature in eight years.

Tax for Medicine Peddlers.—A bill to regulate the license of itinerant vendors of medicine, nostrums and appliances for the treatment of diseases has been introduced by Representative J. T. Johnson, Fergus Falls. The bill provides that licenses, the fee for which is fixed at $100, must be obtained from the board of pharmacy and that applicants must satisfy the board that the articles are not dangerous to health or intended for any unlawful or immoral purposes.

Society Meeting.—At the annual meeting of the Brown-Redwood Counties Medical Society, March 30, the following officers were elected: President, Dr. Frank D. Gray, Vesta; vice-president, Dr. James L. Adams, Morgan; secretary-treasurer, Dr. William A. Brand, Redwood Falls; censor, Dr. Giles R. Pease, Redwood Falls; delegate to the state society, Dr. George F. Reineke, New Ulm, and alternate, Dr. Gilbert L. Gosslee, Wabasso.

Personal.—Dr. John Jackola, Duluth, sailed for Germany April 1.——Dr. Martin J. Taylor, Janesville, suffered an attack of cerebral hemorrhage March 27.——Dr. Charles C. May has been elected health officer of Adrian.——Dr. James A. Quinn, St. Paul, has been appointed a member of the State Board of Health, vice Dr. James B. McGaughey, Winona, deceased.——Dr. Arthur B. Ancker, St. Paul, has been re-elected superintendent of the City and County Hospital.

Physicians Exonerated.—The suit against Dr. Charles B. Lenont, Virginia, who conducts a hospital in that town, brought by Christ Christopherson, who alleged that his fractured arm was improperly set, was dismissed before Judge Dibell, who ruled that there had been no malpractice.——The jury in the Duluth District Court, March 24, decided that Dr. J. Hjalmar Jern, West Duluth, was not guilty of malpractice in his treatment of Hilding Gradine, who sued for $25,000, claiming that Dr. Jern had made an erroneous diagnosis.——The school board of Swanville has dropped its case against Dr. Henry M. Bracken, secretary of the State Board of Health, who was arrested March 20 on a charge of assault and battery. The case arose from a dispute between the town health physician and the principal of the school regarding a recent epidemic of diphtheria in the village.

NEBRASKA

College Will Be Enlarged.—Creighton University has purchased for $12,200, lots across the alley from Creighton Medical College, where an annex will be built.

Casualty Association Election.—At the annual meeting of the Physicians' Casualty Association in Omaha, Dr. De Witt C. Bryant, Omaha, was elected president; Drs. Dellizon A. Foote, Omaha, and Charles M. Schindel, South Omaha; Vernon L. Traynor, Council Bluffs, Iowa; and Adam R. Ray, Fairfield, vice-presidents, and E. E. Elliott, Omaha, secretary-treasurer.

Gift to Medical College.—Gurdon W. Wattles, Omaha, has promised to give at least $100,000 or more if necessary for the founding of the Orthopedic Hospital as a part of the enlargement of the College of Medicine of the University of Nebraska, to be built in Omaha. Two other Omaha men have signified their intention of giving fifty or seventy-five thousand dollars each toward the building of the institution. The legislature has passed a bill appropriating $20,000 for a site.

Personal.—Dr. Brice A. Corbin, Schuyler, has retired from practice on account of ill health.——Dr. Percival has assumed charge as superintendent of the Norfolk Hospital for the Insane, vice Dr. Young, who is studying in Europe.——Dr. John B. Jack, surgeon for the Burlington Volunteer Relief, Omaha, has been promoted to a similar position with the organization in Chicago, and has been succeeded by Dr. C. M. Comlin, Omaha.——Dr. Harry D. Burchard has been appointed city physician and chief health inspector of Falls City.

Pathological Club.—The Pathological Club of the College of Medicine of the University of Nebraska, in its program for the year, takes up many subjects of deep interest to the profession, such as the Emmanuel movement, the plague, medical teaching, sanitary triumphs at the Panama Canal, etc. On April 1, the club gave a dinner in honor of Dr. T. Creighton Wellman, who delivered an address on "Tropical Diseases and Their Relation to Temperate Climates," in which he made especial mention of leprosy, bubonic plague and Asiatic cholera. He stated that the deadly African climate was not so deadly as was actually believed, as its diseases were well-known and definite means of guarding against them could be taken by the forewarned traveler.

NEW JERSEY

Personal.—The board of managers of the New Jersey Sanatorium for Tuberculosis has elected Dr. William S. Jones, Camden, president.——Dr. John H. Moore has been elected secretary of the board of health of Bridgeton.

Osteopaths Recognized.—On April 6, the Senate, after considerable discussion, passed a measure, known as the state medical society bill. This gives the osteopaths one member on the State Medical Examining Board and a legal status as practitioners.

Hospital Association Elects Officers.—At a meeting of the Physicians' Hospital Association of Vineland, April 1, the following officers were elected: President, Dr. Waldo F. Sawyer; vice-president, Dr. John S. Halsey; secretary, Dr. Morris R. Faulkner; and treasurer, Dr. George Cunningham.

Prescriptions for Liquor.—A committee composed of Drs. John W. Wade, Millville; S. Thomas Day, Port Norris; and David H. Oliver, Bridgeton, has been appointed by the Cumberland County Medical Association to investigate the charges that some practitioners have been writing indiscriminate prescriptions for liquor. The committee will try to convert the lawbreakers and induce them to join the association and discontinue their present evil practices.

Inebriates and Near-Insane.—At the request of Dr. Henry A. Cotton, medical director of the State Hospital for the Insane, Trenton, two bills have been introduced by Senator Levitt, one providing for the commitment of confirmed inebriates to the hospital and the other making provision for the admission into any institution for the insane for treatment of those on the border line of insanity or who believe themselves to be in danger of losing their reason.

NEW MEXICO

Sanatoria.—The Sunnyside Ranch, a tuberculosis sanatorium on the cottage plan, located a mile and a half north of Silver City, has been opened under the charge of Dr. LeRoy S. Peters.——A new sanatorium is to be built by the Sisters of Charity in Santa Fe at a cost of about $100,000.——The United States government has authorized the expenditure of $374,000 for improvements at the United States General Hospital, Fort Bayard. Of this sum $214,000 is to be used for the construction of officers' and nurses' quarters and the balance for a steam laundry, power plant, and ward buildings for patients.

Society Meetings.—At the annual meeting of Bernalillo County Medical Society, held in Albuquerque, the following officers were elected: Dr. Walter W. Spargo, president; Drs.

Lucien G. Rice and Harry B. Kauffman, vice-presidents; Dr. John R. Haynes, secretary; Dr. Eligio Osuna, treasurer; Dr. Daniel H. Carns, censor, and Drs. Walter G. Hope and Charles A. Frank, delegates to the state society.——The Torrance County Medical Society has been organized at Estancia with an initial membership of 11, and the following officers: Dr. Christian J. Amble, Manzano, president; Dr. William A. Wilson, Willard, vice-president; Dr. Charles D. Ottoson, Willard, secretary; and Dr. William E. Sunderland, Estancia, treasurer.

NEW YORK

Dinner to Staff.—A dinner was given March 26, by the trustees of the Syracuse Free Dispensary to the physicians and surgeons of the staff of the institution, numbering about thirty.

The Woods Bill Signed.—The governor has signed this measure, which provides for the appointment of health officers through the state outside of cities by local health boards, instead of by the state commissioner of health, after nomination by local health boards.

Tuberculosis Mortality.—The mortality statistics of the department of health show 16,437 deaths in the state from tuberculosis last year. On the accepted basis of reckoning there are at least 150,000 living sufferers from this disease in the state of New York, and to receive these cases there are 1,256 hospital beds outside of New York City.

For the Improvement of the Human Race.—A bill has been introduced directing the State Health Commissioner to appoint two scientific experts to study the problem of improving the quality of the people of the state. Their duties include the investigation of the influence of environment on the quality of individuals, and the publication of recommendations warranted by their studies for the improvement of the human race in this state by means of proper birth and favorable environment. These experts are called on to suggest such limitations of marriage and childbirth as may raise the quality of the people.

Unique Bill Before the Legislature.—An important bill providing for the establishment of county or local hospitals for the care of persons suffering from tuberculosis was introduced in the senate April 1. One provision of this bill is that these hospitals may take private patients as well as those whose care is paid for by the county either entirely or in part. This hospital will be in charge of an administrative superintendent responsible to a board of managers, appointed by the board of supervisors. This bill was drafted by the State Charities Aid Association after exhaustive study of recent legislation, and reports of special commissions, both in the United States and abroad.

Personal.—The medical staff of Rome Hospital has elected Dr. Arthur A. Gillette, president; Dr. Gilbert N. Lehr, vice-president; Dr. Howard J. Teller, treasurer, and Drs. Eliza M. Ellinwood, Thomas P. Scully and Henry D. White, committee on attending staff.——Dr. William H. Beattie has been elected a member of the Utica General Hospital medical staff in the gynecological service, vice Dr. Willis E. Ford, resigned. ——Drs. Charles E. Chase, Sands C. Maxon and Arthur R. Grant have been appointed a committee to consider the matter of a consulting staff for the institution, and Dr. John D. Jones has been elected a member of the executive committee of the medical staff to succeed Dr. Ford, resigned.

Hospitals Acquire Property.—Dr. Albert W. Ferris, chairman of the State Lunacy Commission, has announced that a site for the proposed Long Island Hospital has been purchased at Greenvale, L. I. This site consists of 548 acres of land, 75 per cent. of which is tillable. The property was acquired in the face of bitter opposition on the part of wealthy residents of that part of Long Island. It is the intention of the commission to spend about $2,570,000 on the entire plant. It is planned to lay out the land in the form of a park and the buildings will not resemble the monastic type so common in similar institutions.——The Matteawan State Hospital for the Criminal Insane has purchased about 130 acres of farm land out of the appropriation of $15,000 for this purpose by the last legislature.

Society Meetings.—The Women's Medical Society of the State of New York, at its third annual meeting, held in Rochester, March 12, elected the following officers: Honorary president, Dr. Sarah R. Adamson Dolley, Rochester; president, Dr. Eliza M. Mosher, Brooklyn; vice-presidents, Drs. Mary B. Jewett, New York City; Evelyn Baldwin, Rochester, and Jane Wall Carroll, Buffalo; secretary, Dr. Eveline P. Ballintine, Rochester; treasurer, Dr. Harriet M. Turner, Rochester, and councilors, Drs. Martha Wollstein, New York City; Anna Craig, Kings Park; Mary Gage-Day, Kingston; Julia Kimball, Amsterdam; Florence I. Staunton, Utica; Anna White Marquis, Norwich; Kathleen L. Buck, Rochester; and Maud J. Frye, Buffalo. In the evening the annual dinner was held, which was largely in celebration of the eightieth birthday of the honorary president. Dr. Helen C. Putman, Providence, R. I., who delivered an address on "The Efficient Teaching of Hygiene and Morals in the Public Schools," was elected to honorary membership in the society.——At the annual meeting of the Utica Medical Club, held March 11, Dr. Charles H. Baldwin was elected president; Dr. William Moffat, vice-president, and Dr. John Groman, secretary-treasurer.

New York City

Preventive Medicine.—Lecture and laboratory courses in tropical medicine, public health and sanitation, including school and factory inspection, have been inaugurated at the New York Post-Graduate Medical School and Hospital, and will be given by officers of the medical corps of the Army and Navy.

Tribute to Dr. Michaelis.—The medical profession of this city, under the auspices of the Metropolitan Medical Society, visited the grave of Dr. Ludwig M. Michaelis April 11, planted a memorial laurel tree, and erected a bronze tablet to his memory. The Rev. Stephen Wise delivered the memorial address.

To Visit Every Baby.—The Bureau of Child Hygiene of the department of health has employed 140 nurses, one of whom will be sent into every home, after the receipt of the birth certificate, beginning April 15. As the summer progresses this number will be increased. If the mother is intelligent and the baby healthy, the first visit will be the last, but if either instruction or care is needed, the case will be assigned to the agency best adapted to give relief.

Will Support the Junior Sea Breeze Work.—John D. Rockefeller has authorized the New York Association for Improving the Conditions of the Poor to open Junior Sea Breeze Hospital at Sixty-fourth street and East River. Mr. Rockefeller has maintained this hospital for children for the past three summers. A larger staff of visiting nurses will be employed during the coming season and the hospital will be completely renovated. There will be day classes for mothers and children.

Changes at the College of Physicians and Surgeons.—Dr. William G. MacCallum of Johns Hopkins University will take the chair of pathology. At his own request, Dr. Walter B. James has been transferred from the Bard professorship, which involved the administration of the department, to a professorship of clinical medicine, and Dr. Theodore C. Janeway and Dr. Evan M. Evans have been promoted, the former to the Bard professorship and the latter to a newly-created professorship of clinical medicine.

Personal.—Dr. Linsly R. Williams has sailed for Europe, where he expects to make a study of the work carried on in the large milk depots of Germany for purposes of comparison with that done in this country.——Dr. Achilles Rose, whose efforts in behalf of a reform in medical onomatology are well-known, leaves New York April 20, and expects to spend the remainder of his life in Athens, where his labors as a philhellene will undoubtedly assure him a warm reception. ——Dr. Thomas W. Burnette, ambulance surgeon of the New York Hospital, was seriously injured in a collision between the ambulance and a street car, March 27.——The consulting, attending and assisting staff at the Cumberland Street Hospital, Brooklyn, gave a testimonial reception March 30, to Dr. Charles B. Bacon, superintendent of the hospital, who has accepted the superintendency of the City Hospital, Blackwell's Island. A gold watch was presented to Dr. Bacon by Dr. Simmons in behalf of the staff of the hospital; the nurses of the institution presented him with a marine painting, and the employés gave him a pair of candelabra and a clock.——Dr. Russell Burton-Opitz, adjunct professor of physiology in Columbia University, has been appointed head of the department of physiology.

Buffalo

Pleads for Cancer Laboratory.—Dr. Harvey R. Gaylord of the New York State Cancer Laboratory, in his annual report to the State Health Commission, pleads for an appropriation of at least $25,000 for the work of the laboratory.

Personal.—Dr. and Mrs. Edmond E. Blaauw have gone to Naples.——The civil service commission has reported that the following physicians have passed the highest examination for the surgeons in the police and fire departments: Drs. Edwin A. Bowermann, Herman K. DeGroat, Thew Wright, Thomas J. Walsh, Edward E. Haley, William T. Getman, and Carroll J. Roberts.

Choice of Two Sites.—The sub-committee on sites appointed by the commission which is considering plans for a municipal hospital for contagious diseases, has considered twenty sites, and from this has selected two, one opposite the German Roman Catholic Asylum which can be obtained for $60,000, and the other containing six and three-quarters acres, which adjoins the present quarantine hospital, and can be purchased for $28,000.

Asks Large Appropriation.—Dr. Julius Ullman has instituted a new element in the discussion of contagious diseases by declaring that the city should appropriate $50,000 a year to combat scarlet fever and diphtheria. The German Hospital has proposed to the commission to furnish a site for a tuberculosis hospital providing the city will construct and equip a building to cost $62,500, and to furnish accommodation for 50 tuberculosis patients.

NORTH CAROLINA

Society Meeting.—At the annual meeting of the Rutherford County Medical Society, Dr. Thomas B. Lovelace, Henrietta, was elected president; Dr. Edgar B. Harris, Rutherford, vice-president, and Dr. William C. Bostic, Forest City, secretary-treasurer.

Dispensaries Open.—The Durham City and County Dispensary for the Treatment of the Throat and Lungs was opened April 1. Treatment is free to citizens of the county and city of Durham.——The Charity Aid Society of Greenville is perfecting plans to establish a free clinic in the Greenville Infirmary to be opened for two hours each day, for those unable to pay for medicine and medical advice.

Personal.—Dr. Addison E. Brentzer, Charlotte, who has been studying in Europe for two years, will soon return and locate in Charlotte.——Dr. Thomas Stringfield, Waynesville, has been reappointed inspector general of the N. C. N. G., with the rank of colonel.——Mr. J. L. Ludlow, civil engineer of the state board of health, has been reappointed chief of engineers of the N. C. N. G., with the rank of colonel.——Dr. Watson S. Rankin, Wake Forest, has been elected secretary of the state board of health, vice Dr. Richard H. Lewis, Raleigh, resigned.——Dr. Francis Duffy, Newbern, has been appointed director of the Central Hospital board, Raleigh.

OHIO

Revocation of License to Practice.—By unanimous vote the Ohio State Board of Medical Registration and Examination, at its meeting April 6, is said to have revoked the certificate to practice of Dr. Alphonso Eratus, Cincinnati, on account of unprofessional conduct and gross immorality.——Drs. Alexander B. Barker, Dayton, and Albert C. Goode, Cleveland, have secured injunctions against the State Board of Medical Registration and Examination to prevent the board from revoking their licenses.

Personal.—Dr. Albert V. Phelps, professor of anatomy in, and secretary of, the Medical College of Ohio, Cincinnati, has resigned both positions.——Edward Ness, Jr., Cincinnati, has been appointed a member of the Ohio State Pharmacy Board.——Dr. T. Addison McCann, Dayton, has been appointed a member of the State Board of Medical Registration and Examination by the governor to succeed Dr. Henry E. Beebe, Sidney.——Dr. Frank E. Fee, Cincinnati, sailed from New York for Europe, April 7.

PENNSYLVANIA

Nurses' Bill Passes the House.—The Nurses' Registration Bill was passed finally, April 9, by the House by a vote of 121 to 52. This is the second attempt of the Graduate Nurses' Association to secure legislation for the betterment of their profession. The bill provides a state board of examiners for graduate nurses. It does *not* prohibit unregistered nurses from practicing, but it makes it illegal for them to use the term "registered nurse."

Hospital Opened.—The formal opening exercises of the Oliver Annex to the South Side Hospital, Pittsburg, were held March 25, which included an afternoon reception from 2 to 5, an evening reception from 7 to 10, and dedicatory exercises at 8:30. The annex contains on the fifth floor an operating suite and 12 private rooms; on the fourth floor 20 private rooms; on the third floor wards for women and children and an obstetrical department; on the second floor, the men's medical ward; on the first floor the men's surgical ward, and in the basement, hydrotherapeutic, electrotherapeutic and *x*-ray departments. The institution now can accommodate 250 patients.

Personal.—Dr. H. M. Hiller, Chester, has been appointed Medical Inspector for Delaware county.——Dr. Franklin Hinkle, Columbia, the oldest living graduate of the Medical Department of the University of Pennsylvania in practice, celebrated, on April 3, his sixty-third anniversary as a practitioner. Dr. Hinkle graduated from the university on April 3, 1846.——Dr. John J. Light has been re-elected resident surgeon of the Good Samaritan Hospital, Lebanon.——Dr. John J. Beilheimer, Priceburg, who has been suffering from a fractured leg, has been obliged to have it refractured and reset.——Dr. Julius H. Comroe, York, has been elected a member of the staff of York Hospital.

Philadelphia

Testimonial to Dean Holland.—The students, associates, and friends of Dr. James W. Holland, dean of Jefferson Medical College for twenty-one years, have arranged to secure a suitable portrait of him and present it to the college, as a mark of esteem in which he is held by them. Subscriptions of not exceeding $5 will be received by the committee in charge, and checks may be made to the order of H. Augustus Wilson, treasurer, or any other member of the committee.

Hospital News.—Dr. Joseph S. Neff, director of the Department of Health and Charities, awarded a contract for $7.400, April 10, for the construction of a wood and glass tuberculosis hospital at Byberry, on the completion of which tuberculosis patients in the Philadelphia General Hospital will be removed to the new hospital.——The Frederick Douglas Memorial Hospital, which has been erected at a cost of $100,000 and will accommodate about 100 patients, was dedicated with appropriate ceremonies, April 15.

Tuberculosis Exhibition for State.—Arrangements were made, April 10, to send the exhibit of the Pennsylvania Society for the Prevention of Tuberculosis to different towns throughout the state. Thus far, arrangements have been made for the exhibition to visit Quakertown, Perkasie, Sellersville, Telford, Souderton, Lansdale and other smaller towns. A similar display sent out last year by the society was visited by 154,732 persons. Those towns wishing to have the exhibit may make arrangements with Wallace Hatch, executive secretary of the society, Philadelphia.

Personal.—Dr. W. M. Late Coplin, medical director of the Jefferson College Hospital, was tendered a testimonial dinner by the visiting staff of the institution April 8.—Dr. Edward E. Montgomery was the guest of honor at the annual banquet of the Wilmer Krusen Gynecological Society of Temple University on April 10.——Dr. Joseph S. Neff was the guest of honor at the annual banquet of the Medical Club, April 16.——Dr. John B. Roberts, while on a recent visit to Pensacola, Fla., as the guest of Dr. Louis De M. Blocker, read a paper before the state medical society.

TENNESSEE

Commencement Exercises.—On April 26, a class of 24 will be graduated from the medical department of the University of Chattanooga.——A class of eight was graduated from the medical department of the University of West Tennessee, Jackson, April 8. The addresses of the occasion were delivered by Dr. Lloyd T. Miller, Yazoo City, Miss., and Rev. R. A. Adams.

Personal.—Dr. Louis Leroy, Memphis, has been appointed a member of the State Board of Embalmers.——Drs. Charles N. Cowden, Perry Bromberg, and Lucius E. Burch, Nashville, have been appointed by the Davidson County Academy of Medicine a committee to name a staff of physicians for the municipal free dispensary for tuberculosis.——Dr. James W. Reed has been elected mayor of Belfast.

TEXAS

To Establish Pasteur Institute.—Dr. Benjamin M. Worsham, El Paso, formerly superintendent of the State Insane Hospital, Austin, announces his intention of establishing a Pasteur Institute in El Paso at an early day.

Personal.—Dr. Thomas B. Bass, assistant superintendent of the Epileptic Colony, Abilene, has been elected superintendent, vice Dr. John R. Preston, and Dr. Manton M. Carrick, Dallas, succeeds Dr. Bass as assistant superintendent.——Dr. Judson M. Andrews, Wharton, has been appointed health officer and jail physician for Wharton county.——Dr. Robert F. Williams, El Paso, has been appointed superintendent of the Virginia State Tuberculosis Sanatorium, the "Catawba Sanatorium."——Dr. Walter N. Vilas, El Paso, has been reappointed physician of El Paso county.——Dr. Garland B. B. Foscue, Waco, a member of the State Board of Medical Examiners, has resigned.

Sanatorium Bill Vetoed.—The governor, on April 1, vetoed the bill creating a tuberculosis sanatorium. His reasons for vetoing the bill were as follows: "I have carefully considered this measure and believe that the large expenditure contemplated with facilities for only 200 patients, taken from the thousands now suffering from this dread disease in our state, demonstrates the impracticability of dealing with this important question in the manner proposed and outlined by this bill, and it is therefore disapproved. The taking of so small a number into a sanatorium from the great number of sufferers from tuberculosis in this state would not meet the situation and would hardly justify the heavy expenditure required at this time, and incident to the maintenance of such institution hereafter."

Physicians Appointed on Boards of State Institutions.—The following physicians have been appointed by the governor as members of the board of trustees of state institutions: Drs. James W. McLaughlin, Austin, and Ashley W. Fly, Galveston, board of regents of the University of Texas; Dr. Goodall H. Wooten, Austin, board of trustees of the State Lunatic Asylum; Dr. Robert M. Wickline, Austin, board of trustees of the State Blind Institute; Dr. Lewis L. Lacey, Austin, board of trustees of the Deaf and Dumb Asylum; Dr. Luther A. Grizzard, Abilene, board of trustees of the State Epileptic Colony, and Drs. Edwin P. Becton, Greenville; James D. Osborne, Cleburne; William B. Collins, Lovelady; Robert H. McLeod, Palestine; John J. Dial, Sulphur Springs; John D. Mitchell, Fort Worth; Marquis E. Daniel, Honey Grove; R. O. Braswell, Fort Worth; Thomas J. Crowe, Dallas; John P. Rice, Alpine, and J. F. Bailey, Waco, state boards of medical examiners.

WISCONSIN

Amsterdam Professor Lectures.—Dr. Frederick Van Eeden, Amsterdam, who twenty years ago established the first clinic for the mental treatment of diseases, delivered a special lecture on this subject at the University of Wisconsin, Madison, March 23.

Personal.—Dr. Uranus O. B. Wingate has retired from the Fox Lake Sanatorium and will resume professional work in Milwaukee.——Dr. S. Breck Ackley, Oshkosh, on the eve of his departure to Waukesha, was presented with a diamond-studded gold locket and fob by the members of the Oshkosh Medical Club.

The Christmas Stamp Campaign.—According to the report of the Wisconsin Antituberculosis Association, the net proceeds from the sale of Red Cross Christmas stamps amounted to $8.754.88. This money will be used for educational purposes, to send out pamphlets and traveling exhibits, and for lectures and demonstrations.

Campaign Against Plaster Specialist.—The physicians of Polk, Barron, Burnette, and Washburne counties are planning a campaign against John Till, a specialist of Almena, who purports to cure all diseases with certain ointments and plasters, the composition of which are secrets known to him alone. It is planned to institute criminal proceedings, alleging violation of the state law which prohibits the practice of medicine without a license.

GENERAL NEWS AND COMMENT

Librarians to Meet.—The twelfth annual meeting of the Medical Library Association will be held in Washington and Baltimore, May 12 and 13, under the presidency of Dr. George Dock, New Orleans. The association was founded in 1898 and has for its object the fostering of a medical library and the maintenance of an exchange of medical literature among its members.

Society Meetings.—The Society of Clinical Surgery met at Johns Hopkins Hospital, Baltimore, April 2 and 3, and elected the following officers: President, Dr. John M. T. Finney, Baltimore; vice-president, Dr. Rudolph Matas, New Orleans; secretary, Dr. James G. Mumford, Boston, and treasurer, Dr. Charles H. Frazier, Philadelphia.——The American Association of Pathologists and Bacteriologists, at its annual meeting in Boston, April 8, elected Dr. Frank B. Mallory, Boston, president; Dr. Philip H. Hiss, Jr., New York City, vice-president; Dr. Harold C. Ernst, Boston, secretary, and Dr. Herbert W. Williams, Buffalo, N. Y., treasurer. It was decided to hold the next annual meeting in Washington in May, 1910.

The Carroll Fund.—The following contributions to the Carroll Fund have been received since the publication of the list in THE JOURNAL, April 3:

Previously reported	$2,504.95
Dr. Julius Noer, Stoughton, Wis	2.00
Dr. Francis Schill, Jr., Johnstown, Pa	2.00
Dr. R. H. Ward, Troy, N. Y	5.00
Dr. L. C. Benkert, Columbus, Ohio	2.00
Dr. W. G. Christian, Gordonsville, Va	2.00
Dr. C. F. Hewins, Loda, Ill	1.00
Dr. E. C. Levy, Richmond, Va	5.00
Dr. M. G. Seelig, St. Louis	1.00
Dr. Arthur A. Small, Chicago	10.00
Dr. Charles H. Smith, Uniontown, Pa	5.00
D. E. W., Buffalo, N. Y	2.00
Dr. A. L. Wilson, Lynchburg, Va	2.00
Dr. Evangeline W. Young, Boston	2.00
Dr. Augustus A. Eshner, Philadelphia	5.00
Dr. Francis B. Harrington, Boston	10.00
Dr. Simon Flexner, New York	10.00
Dr. Harold Williams, Boston	5.00
Dr. James G. Fisher, Rossiter, Pa	5.00
Dr. Chas. J. White, Boston	5.00
Dr. W. E. Bestwick, Algonac, Mich	1.00
Medical Association, Canal Zone, Panama	100.00
Calumet Branch, Chicago Medical Society, Pullman, Ill., Dr. John McLean, Dr. Frederick A. Bonthius, Dr. F. B. Moore, Dr. James W. Kelly, Dr. G. A. Post, Dr. Soren S. Noraman, Dr. R. C. Liberton, Dr. J. S. Kauffman, Dr. G. Seim, Dr. F. A. Maguy	10.00
Dr. Thomas J. Watkins, Chicago	5.00
Dr. Theodore Bratrud, Warren, Minn	5.00
Dr. Thos. C. Phillips, Milwaukee	5.00
Dr. Howard Lilienthal, New York	5.00
Dr. Douglas C. Moriarta, Saratoga Springs, N. Y	5.00
Dr. C. B. Burr, Flint, Mich	5.00
Dr. Warren Coleman, New York	10.00
Dr. Jas. A. King, Millsville, Mass	1.00
Dr. R. L. Randolph, Alexandria, La	5.00
A Physician of Louisiana	5.00
Dr. Anders Frick, Chicago	2.00
Dr. Hugh Mullarky, Manson, Iowa	1.00
Jefferson County Medical Society, Beaumont, Tex	16.00
[illegible] dical Society, Charlotte, N. C	10.00
[illegible] Society, Waseca, Minn	10.00
[illegible] na, Ark	1.00
[illegible], Tex	1.00
[illegible]	10.00
[illegible], Baltimore	10.00
	$2,808.95

Subscriptions will be acknowledged in subsequent issues of THE JOURNAL. There is still a balance of $4,800 needed to raise the mortgage on this property. Surely the medical profession of the country will do this much for the widow of James Carroll. Secretaries of county societies are requested to bring this matter to the attention of their societies at the first opportunity. The letter below is published as suggestive in this connection:

To the Editor:—I want to tell you one result of your editorial in THE JOURNAL, April 3, appealing for funds for Dr. Carroll's widow and family. Last Sunday, in looking over THE JOURNAL, I noticed Major Ireland's letter and your editorial, both of which touched my heart deeply. The Rockland County (N. Y.) Medical Society held its quarterly meeting to-day and I moved that the chairman appeal for aid in response to the resolution presented in Major Ireland's communication, and that every man in the society subscribe $1. A motion was adopted authorizing the treasurer to send a check for thirty odd dollars to Major Ireland at once. I trust that every county society will do likewise, and that physicians in Mexico, Cuba, Central and South America will also contribute. S. W. S. TOMS, Nyack-on-Hudson, N. Y.

Send all contributions to

MAJOR M. W. IRELAND,
Surgeon-General's Office, War Department, Washington, D. C.

Manila Medical Society.—The annual report of the secretary-treasurer of the Manila Medical Society shows that the average attendance at the monthly meetings was 23.2; that forty papers, cases and specimens were presented before the society; that during the year 22 members had left the islands and 43 new members had been received, making a total membership of 91. At the special cholera meeting, held in October, a resolution was passed addressed to the governor-general, stating it to be the sense of the society that the proper disposal of human excreta was the greatest single sanitary need of the Philippines, and asking that a special commission be appointed to make a practical study of the problems connected therewith.

Annual Report of the Public Health and Marine-Hospital Service.—In the annual report of the P. H. and M.-H. Service of the United States for the fiscal year ended June 30, 1908, Surgeon General Walter Wyman takes up successively the plague situation in San Francisco, and measures adopted for the sanitary rehabilitation of the city; the present pandemic of plague; scientific research and sanitation work undertaken; the supervision of vaccines, sera, etc.; investigation regarding tuberculosis, typhoid fever, hook-worm disease, rabies, leprosy, and pellagra; the relation of milk to disease; examination of water; identification of fleas; investigation of appliances advertised for the treatment of diseases; relations to the Pharmacopeia, and to the American Pharmaceutical Association. He states that one of the most important reforms in the history of American medicine has been accomplished through the work of the Council on Pharmacy and Chemistry of the American Medical Association, by which many frauds have been uncovered, unwarranted claims in advertisements have been given new light, manufacturers have been compelled to state the true contents of medicines exploited, and many other reforms have been inaugurated looking to the general uplift of the medical and pharmacal professions. During the fiscal year the activities in the hygienic laboratory have increased in scope. An addition to the building, for which $75,000 was appropriated by Congress, is practically completed, and a further addition is needed to provide necessary space for experimental and routine work, and to afford room for classes of student officers of the Army and Navy medical schools. A special course of thirteen weeks for student officers has been inaugurated. The quarantine against Cuba, the insular quarantine in the Philippine Islands, and the foreign quarantine and fruit-port inspection service are then described. During the year 935.596 immigrants were inspected by medical officers of the service, of whom 10,902 were certified. Special attention is invited in the report to the sanitarium at Fort Stanton, N. M., for the reception of tuberculosis patients of the service, the leprosy station at Molokai, Hawaiian Islands, and the hygienic laboratory.

FOREIGN

Tuberculosis Dispensaries at Madrid.—Two well-equipped antituberculosis dispensaries have been opened at Madrid and placed in charge of leading physicians, with a numerous staff of assistants.

The Cornil Monument.—Subscriptions to the amount of 27.000 francs ($5.400) have already been received toward the monument to the late Professor Victor Cornil of Paris. The monument is to be erected at Cusset, his birthplace, and will be a worthy memorial of the well-known surgeon.

The Swedish Medical Association Fund for Spa Treatment.—The *Svenska Läkaresällskapet* has a small fund at its disposal the income of which is given annually to some person of Swedish nationality to enable him or her to have the benefit of a course of treatment at the German watering-place, Aachen, better known as Aix-la-Chappelle.

LONDON LETTER

(From Our Regular Correspondent)

London, April 3, 1909.

Research on Tropical Diseases

The report of the advisory committee of the Tropical Diseases Research Fund for 1908 shows that the revenue for the year amounted to $17,000, which was made up of contributions of $5,000 from the imperial government, $2.500 from the government of India, $1,000 from the Rhodes trustees and $8,500 from various colonies and protectorates. The money was distributed as follows: London School of Tropical Medicine, $6,500; Liverpool School of Tropical Medicine, $5,000; University of London, $3,750; Cambridge University, $500; Australian Institute of Tropical Medicine, $2.000. Of the grant to the Liverpool School half was employed for the appointment of a lecturer in economic entomology and parasitology and of a lecturer in tropical medicine, both of whom are required to devote their spare time to research. The other half of the grant was used in part payment of the expenses of the "sleeping sickness expedition," sent by the school to Rhodesia. Out of the grant to the London School, $5.000 was devoted to the payment of a teacher and investigator of protozoology and of a teacher and investigator of helminthology. The post of director of the Central Research Institute established in Southern Nigeria has been allotted to Dr. W. M. Graham, a medical officer of the Gold Coast colony. It is proposed to found an Australian Institute of Tropical Medicine at Townsville in North Queensland, which is within the area of tropical diseases, and is the first port of call for vessels coming to Australia from the far east. The Queensland government has promised $1.250 a year and the Commonwealth government $2,250 toward defraying the expense. A proposal to despatch a scientific expedition to Papua, which in the committee's opinion offers a great field for important work, has been deferred until the new Australian Institute has been established.

Action for Alleged Infection from a Hospital

An action against hospital authorities has been brought under exceptional circumstances. The plaintiff lived in country district named Alton, in which an outbreak of diphtheria occurred. An isolation hospital was erected adjoining his land. One of his children, a girl aged 7 years, crept under a wire fence and approached the hospital. She also played with a kitten which had lived in the hospital. She contracted diphtheria, and the plaintiff alleged negligence on the part of the hospital authorities. Medical evidence was given to the effect that infection with diphtheria might have been brought about by infected children coughing on the grass where the child played. The judge ruled that there was no evidence of negligence to go to the jury, for the child might have become infected in a thousand different ways.

Workman's Claim for Compensation for Hysterical Paraplegia

As shown in previous letters, the Employers' Liability Act is giving rise to all sorts of unreasonable claims for compensation. The following case has occurred in Dublin: A laborer sued a firm of fertilizer manufacturers for injuries to his spine received while loading fertilizer in barrows. The accident was the result of a heap of fertilizer, 7 or 8 feet high, falling on him. He became unconscious and was treated in a hospital. His physician stated that he was suffering from an injury to the spine which prevented him from working. He moved about the court with the aid of crutches. On the other hand, medical evidence was produced for the defendants to show that the plaintiff had no organic disease of the spine, and that the only reason why he could not walk was that he had the fixed idea in his mind that he was unable to do so. Sir Charles Ball was asked to examine the plaintiff as medical assessor. He agreed with the evidence that there was no organic disease, but he did not think that the man was malingering, but that he was in a nervous and hypochondriacal condition and was not fit for work at present. The judge commented on the enormous advantage of the aid of a medical assessor in these cases. The important question was how far the accident could be held responsible for the man's mental condition as distinguished from physical injuries. He suggested that some agreement should be arrived at between the parties. By consent of both parties he made an interim order for payment of an allowance to the plaintiff and adjourned the case until next session.

Physician Dies from the Bite of a Patient

Mr. A. B. Wilson, house surgeon at the London Hospital, has lost his life under peculiar circumstances and has added one more name to the list of physicians who have died in the discharge of their duty. On March 19 he assisted in the treatment of a woman who had tried to commit suicide by taking laudanum. It was necessary to gag her to pass the stomach tube. As she did not want to live, she struggled violently to prevent the operation. She knocked the gag out of her mouth and seizing Mr. Wilson's hand she bit his thumb. Not much notice was taken of the injury at the time and nothing was done to the wound. On the following day he complained for the first time and he became so ill that he was admitted to the resident ward on April 24. The wound healed but septicemia supervened and he died April 31.

PARIS LETTER

(From Our Regular Correspondent)

Paris, March 30, 1909.

Election of Dr. Segond to the Academy of Medicine

At the last session of the Academy of Medicine, Dr. Paul Segond, professor of clinical surgery in the Faculty of Medicine and surgeon to the Hospital of the Salpêtrière, was elected, by 63 votes out of 75 voters, as an honorary member of the section on operative medicine, in place of the late Professor Berger.

The Abuse of Disinfection in Paris

At the last meeting of the Medical Society of the Hospitals of Paris, Dr. Comby, physician to the Hospital for Sick

Children, argued energetically against the compulsory notification of measles and the consequent disinfection. The floors and walls are washed, the furniture is sprinkled with antiseptic solutions, bed linen, etc., is sent to the sterilizer, etc. There is thus caused much annoyance to families as well as prejudice against them without any advantage. It is especially before the eruption and within wide limits—four days for the period of invasion and as much for the eruptive period—that measles is contagious, and the contagiousness lasts altogether eight days. When this period has passed one might sleep with a measles patient in full desquamation without contracting the disease. On the other hand once outside the organism the measles germ rapidly loses its vitality. It can not exist on floors, walls or furniture. Consequently the disinfection is useless. Some twelve years ago the lamented Professor Grancher prevented the Academy of Medicine from including measles in the list of compulsory notifiable diseases, but in 1903 during his absence the partisans of notification returned to the charge and the academy gave way. The result was for the public a real abuse of disinfection. Recently Dr. Courmont, professor of hygiene at the Faculty of Medicine at Lyons, after a study in Scandinavian countries, where measles is declared every month, but without individual notification of cases, demanded that this affection should be removed from the list of compulsory notifiable diseases. Dr. Lemoine, professor at Val-de-Grâce, is no less convinced of the uselessness of disinfection in measles. He goes even further and throws doubt on the value of place disinfection in the other contagious diseases. In Paris, municipal disinfection, which is very costly, has not kept its promises; it has not prevented the contagious diseases from spreading and even multiplying. Never, indeed, has there been so much scarlatina, measles, whooping cough, as during these latter years, and if diphtheria has declined, that is due, not to disinfection, but to the use of antitoxin. Dr. Comby concluded his communication by asking the Academy of Medicine to return to its superceded vote of 1903, and finally to erase measles from the already too long list of compulsory notifiable diseases.

Four Inaugural Addresses

Four new professors have recently taken possession of their chairs at the Faculty of Medicine, viz., Gilbert Ballet, Quénu, Hartmann and Chauffard. The inaugural address of each deserves notice, not only because of its weighty character, but still more because it constitutes a veritable profession of faith. After reviewing the career of his predecessor, Professor Joffroy, Gilbert Ballet criticized severely the bill concerning the insane, voted by the Chamber of Deputies, and intended to replace the law of 1838, which it was alleged, exposed the insane to arbitrary sequestrations. Far from sharing the current opinion, Ballet thinks, on the contrary, that the law of 1838 is one of the best conceived, the wisest, and the most practicable laws possible. If there have been arbitrary sequestrations, that is not because the law of 1838 was badly constructed, but because it was badly applied. The new bill gives, in spite of appearances, infinitely less security to the insane and to his family. It takes us back more than 100 years to the period before Pinel. It would render the situation of unfortunate psychopaths absolutely intolerable, because any access of mental confusion, maniacal excitement, or melancholia would necessitate the intervention of the court to attest by a judicial decision the misfortune which had overtaken them and to which this decision would impress a humiliating significance. It is to be hoped, then, that this bill will be carefully revised by the senate before being definitely adopted.

Professor Quénu devoted his inaugural address to a review of the predominating action of the men who have presided over the extraordinary surgical revolution of the last thirty years. In giving his audience the impressions of a student of 1871, Quénu described the work of Lister and the rôle played in the introduction into France of antisepsis and asepsis by Lucas-Championnière and Terrier, the first the personification of antisepsis, the second of asepsis. Reviewing next the social evolution of surgery, Quénu showed how the public has, little by little, come to believe that the resources of surgery are, so to speak, limitless, and consequently that every failure is necessarily the result of a fault of technic. He who would devote himself to surgery, therefore, must take notice of this change in the social atmosphere. More than ever, moral, scientific, and technical qualities are necessary in the practice of surgery. Moreover, Quénu holds that surgery should be reserved solely to surgeons by profession. He is not in accord with those who consider that every practitioner who has passed the faculty's examination should be able to perform at least emergency operations.

Entirely different is the viewpoint of Professor Hartmann, who, in reviewing, in his inaugural address, the history of the chair of operative medicine and the practical instruction which acompanies it, insisted that every physician should receive an education sufficient to enable him to intervene in emergency cases, especially in districts removed from great centers.

The subject of Professor Chauffard's course was the history of tuberculosis; but the first lesson of this course was devoted to a more general theme, namely, the rôle of discovery in the history of medicine. Chauffard especially insisted that alongside of the great discoverers one must not forget also the promoters, those who sowed the first seed of the discoveries that have later transformed the medical sciences. It has been said that the history of medicine is the history of the errors of medicine; according to Chauffard, it would be more justly termed the history of its efforts.

Dr. Huchard Resigns

Dr. Huchard, physician to the Hôpital Necker, has tendered his resignation as member of the jury for the *concours* for the title of physician to the hospitals, of which he has been named president. This decision has caused a marked impression in the medical world. Not wishing to raise any talk, Dr. Huchard assigned as the cause that he is suffering from grippe; but in reality his purpose is a protest against the injustice and favoritism that prevail in the *concours*, and which he considers a necessary consequence of its mode of organization. The ten members of the jury have to designate ten physicians to the hospitals. Each one of the judges has his candidate, who is his pupil and who is sure to be appointed, even though there may be other candidates more deserving than he, but lacking a "patron" among the jury. It is no longer a *concours* in which merit alone should win, for as soon as the jury has been drawn by ballot, it is well known what candidates will be elected. The natural consequence of this procedure is, that on the fourth of March—that is to say, only a few days after the opening of the *concours*—a political journal published, from the composition of the jury, the names of the ten candidates who would be declared admissible. These ten candidates subsequently obtained in the written examination the maximum marks, namely, 20, while the other candidates obtained lesser marks, 17, 18, etc. It is on account of these facts that Dr. Huchard has resigned.

Congress of Physiotherapy

The second Congress of Physiotherapy of French speaking physicians will meet at Paris from April 13 to 15, 1909, under the presidency of Professor Landouzy, dean of the Faculty of Medicine of Paris. The commission of organization has received numerous acceptances, not only from France, but from Belgium, Switzerland and Canada. Questions to be discussed are: (1) The Dangers of the Exercise of Physiotherapy by Empirics; (2) Physiotherapy in the Treatment of Acne; (3) Physiotherapy in the Treatment of Varices and Varicose Ulcers; (4) Physical Agents in the Diagnosis and Treatment of Infantile Paralysis.

BERLIN LETTER

(From Our Regular Correspondent)

Berlin, Mar. 25, 1909.

Accident to von Leyden

A short time ago Prof. v. Leyden met with an accident in which he slipped on the street and fractured the neck of the femur. Considering the age of the patient, 77 years, not only is the prognosis as to the uniting of the fractured bone unfavorable, but there is reason to fear an unfavorable influence on his general health from confinement to bed. It is to be hoped that the unusually vigorous constitution of the scientist will stand him in good stead in this case.

Death of Professor v. Renvers

On March 22 our profession suffered a serious loss through the death of Prof. v. Renvers, who succumbed within a few days of the age of 55 to suppurative pyelophlebitis. While not especially noted as a scientist, v. Renvers was well qualified by his good diagnostic insight and his practical treatment, but not less by his marked intuition, his knowledge of men, his confident bearing and his great friendliness to secure quickly the favor of the public, and he won very soon an extensive practice, especially in the most prominent circles of Berlin.

Medical Congresses

The vacation between the winter and summer semesters of the universities is taken as the time for meeting of some of the medical congresses. Some meet annually in the same place, some go to a new place for each session. The German balneologic society has lately held its session. The German surgical society, the society of orthopedic surgery, and the Röntgen-Gesellschaft, meet in April. The congress for internal medicine meets in Wiesbaden and the pathologic society in Leipsic. An enormous amount of scientific material is presented at these meetings and serves to increase considerably the literature regularly published in our journals. For the surgical congress 110 papers have already been announced. I will report the proceedings of the congress for internal medicine in due time.

International Institute for the Study and Prevention of Insanity

At the Second International Congress for the Care of the Insane (Milan, 1906), a Zurich psychiatrist, Franke, proposed the establishment of an international institute for the study and prevention of the causes of mental diseases. An international committee was accordingly formed. The King of Italy became the patron of the proposed institution and at the Third International Congress for the Care of the Insane (Vienna, October, 1908) a plan worked out by Professor Tamburini of Rome was provisionally accepted. Its organization is to be entrusted to a conference of delegates from various nations. The institute is to be located at Zurich. To secure reports on the causes of insanity from various countries and to ascertain the best means for their prevention, an international commission is to be appointed. Various national committees are to cooperate, and finally an international congress is to be founded for the same purpose. The necessary funds are to be obtained by the contributions of members, by bequests and by appropriations by the governments. The governments and those interested in the work of the institute will be kept in touch with its progress by reports in several languages. This is a comprehensive plan, and some skepticism is at present justifiable as to its realization.

VIENNA LETTER

(From Our Regular Correspondent)

VIENNA, March 27, 1909.

The Impending War and the Medical Profession

The political situation on the southeastern frontier of the empire lately became threatening, and the military authorities had to arrange everything for a war. One of the most important branches, and the one which has received careful attention during the last few weeks, is the army medical corps. Only recently it has been admitted by the military circles that the number of surgeons, as well as their rank and influence, was not up to the requirements; but now, the proportion of surgeons to the men of the rank and file has been improved, so that there is one medical man for at least 200 men. In many places and regiments where the probability of conflict is nearer, the proportion is better still. In order to insure the required number of physicians, the practitioners who are in the army reserve have been called to their ranks in many instances. This means a serious interruption in the practice of many young physicians. Those between 28 and 32 years, who are building up a practice or who have just succeeded in doing so, have been hit hardest, although as much consideration has been exercised as was possible. The absence of physicians in country districts and hospitals will be felt keenly if a war should break out actually, as then a large number of medical men would be called up to fill their posts in the army; meanwhile, physicians joining the army of their own accord are paid well, and it is said that members of the Anglo-American Medical Association in Vienna have availed themselves of this opportunity to have extensive surgical practice on the battlefield (I could not ascertain whether this is founded on actual facts). Each company marching down to the presumptive field of action is provided with ample filtering apparatus; a well-equipped and trained staff of chemists and public health officers will accompany the army in order to deal with any problems of public sanitation arising out of the amassing of huge armies in an uncivilized country amid uncultured population. The canned food distributed to the soldiers has been subjected to regular inspection by the medical officers and special care is taken to provide for the men a varying menu with as little alcohol as possible, but with an ample supply of sugar and sweetened food. In another line, the threatening conflict will affect the position of the military surgeons. The old surgeons of the army are now discharged as quickly as substitutes are obtained for them, so that the younger men have a good chance of promotion; fresh blood comes into the somewhat antiquated body of the army medical corps, and the importance of the medical man is well demonstrated to the rank and file. If, as is the hope of hundreds of thousands, war can be warded off, the medical profession, at least, will have regained an ample influence and obtained the position due to it in the army.

Pharmacology

THE "BRACERS"

"Patent Medicines" Whose Sale Requires a Liquor Dealer's Tax

We have referred before to the admirable work done by the President's Homes Commission and the vast amount of data collected by it and published in its report. The report of one of its committees—that on social betterment—by its chairman, Dr. George M. Kober, contains information of more than ordinary interest to the medical profession. In the chapter on the "Alcohol Question," attention is called to the increasingly large number of what have been called "booze medicines" on the market—that is, alcoholic preparations sold under proprietary names as medicinal products. As a matter of fact, the amount of medicinal agents—aside from alcohol—contained in these "bracers," is so small as to be negligible. The Commissioner of Internal Revenue has published lists of these "medicines" which have been analyzed in his department, and found "insufficiently medicated to render them unsuitable for use as a beverage." The druggist is forbidden to sell these "medicines"—classed as "compound liquors" by the Internal Revenue Department—unless he "has already paid special tax as retail liquor dealer." In his report, Dr. Kober gives the names of over 120 of these "patent-medicine" drinks, together with the alcohol percentage as "ascertained from the Commissioner of Internal Revenue in a communication dated Nov. 28, 1908." We give below a partial list of these, omitting those quoted as having less than 20 per cent. of alcohol:

NAME OF PREPARATION	ALCOHOL PER CENT.
[illegible] Aromatic Tinc-[illegible]	45.00
[illegible]	42.14
[illegible] Specific	32.70
[illegible]id	35.65
[illegible]	34.13
[illegible] Bitters	20.32
Bismarck Laxative Bitters	21.14
Bismarck's Royal Nerve Tonic	20.67
Blackberry Cordial (Strother Drug Co.)	21.50
Blackberry and Ginger Cordial (Standard Chemical Co.)	25.62
Black Tonic	44.62
Bonekamp Stomach Bitters	20.34
Bonekamp Bitters	37.03
Brown's Aromatic Cordial Bitters	42.14
Brown's Vin Nerva Tonic	27.32
Botanic Bitters	20.44
Cinchona Bitters	27.44
Clifford's Cherry Cure	35.90
Clifford's Peruvian Elixir	24.77
Crescent Star Jamaica Ginger	42 65
Cuban Gingeric	31.09
Dandelion Bitters	30.15
De Witt's Stomach Bitters	23.86
Dr. Brown's Blackberry Cordial	29.04
Dr Hoffman's Golden Bitters	26.30
Dr. Sterki's Ohio Bitters	21.67
Dr. Dade's Blackberry Cordial	28.84
Dr. Bouvier's Buchu Gin	39 83
Dr. Fowler's Meat and Malt	33.70
Dr. Worme's Gesundheit Bitters	27.92
Dr. Rattinger's Bitters	27.10
Ducro's Alimentary Elixir	23 01
Elixir Calisaya	22 96
Ferro China Bascal	32.10
Ferro China Bissler	28.87
Gastrophan	26.10
Gentian Bitters	39.95
Gilbert's Rejuvenating Iron and Herb Juice	23.81
Ginger Tonic	25.31
Glycerine Tonic (Elixir Pepsin)	39.72
Green's Chill Tonic	37.88
Jack Pot Laxative Bitter Tonic	24.95
Juni-Kola	22.89
Juniper Kidney Cure	24.21
Karlsbader Stomach Bitters	21.56
Katarno	27.60
K. K. K.	24.12
Kola and Celery Bitters	20.68
Kreuzberger's Stomach Bitters	40.22
Kudros	29.33
Lemon Ginger	28.88
Meta Multa	32.98
Milburn's Kola and Celery Bitters	20.68
Neuropin	32.02
O'Hare's Bitters	44.93
Old Dr. Jacques Stomach Bitters	40.02
Old Dr. Scroggin's Bitters	24.74
Our Ginger Brandy	26.24
Panama Bitters	32.83
Pepsin Stomach Bitters	34.96
Peptonic Stomach Bitters	23.12
Rockandy Cough Cure	23.85
Severa's Stomach Bitters	22.66
Smith's Bitters	34.41
Steinkonig's Stomach Bitters	32.05
Tatra (Latra)	22.90
Tolu Rock and Rye	30.08
True's Magnetic Cordial	26.09
U-Go	32.14
Uncle Josh's Dyspepsia Cure	30.06
Westphalia Stomach Bitters	31.96
William's Kidney Relief	37.00

FALSE CLAIMS FOR MEDICINES

The Awakening of the German Medical Profession to a Serious Abuse

As The Journal has frequently shown, it is not unusual for the less reputable pharmaceutical houses to put out mere mixtures of well-known drugs under fanciful names as entirely new remedial agents possessing peculiar therapeutic virtues. In an address before the German Pharmaceutical Association, H. Thoms[1] condemned this form of dishonesty and called attention to the disfavor into which the German pharmaceutical industry is likely to fall in foreign countries through such unreliable preparations. He quoted the recent utterances of The Journal to show the feeling of the medical profession in America regarding the standing of firms which introduce and advertise such preparations.

The indifference of the German medical profession noted by The Journal is already passing away, and Thoms, referring to the article by E. Harnack,[2] shows that there is an awakening among German physicians and pharmacists who begin to appreciate the extent of the evil.

As at present there is no legal means in Germany of correcting this abuse, Thoms urges the necessity of a law that shall require the actual composition of the preparation to appear on the label; this would work no hardship to the pharmaceutical and chemical interests involved. The law would not involve disputed points as to constitution, but merely the percentage composition of mixture as to its elements. The analyses made under Thoms' direction have shown that the compositions of remedies frequently differ radically from that given on the labels. To illustrate this point the preparations given below are said by Thoms not to fufill the requirements of correct labeling in the particulars given:

Arhovin, claimed to be diphenylamin thymylbenzoate, is a mixture of diphenylamin, thymol and ethyl benzoate.

Aspirophen is not a single substance as advertised, but a mixture of about 63 parts of monoacetylphenocoll and 37 parts of free salicylic acid.

Citrocoll is a mixture containing phenocoll monocitrate.

Epileptol is claimed to be condensed amidoformic acid, while in reality it is a mixture of formamid with a combination of formaldehyd with formamid containing a small quantity of hexamethylenamin.

Eston, Subeston and Fomeston contain aluminum sulphate, which is prejudicial to the best effect of the preparation.

Formurol is a mixture of hexamethylenamin and sodium, neutral and acid citrate.

Iodofan contains far less iodin than should be present according to the formula.

Iod-vasogen contains no free iodin.

Kephaldol, while said to be a compound made under special conditions, analyses showed it to be a mere mixture of phenacetin, sodium salicylate and quinin.

New Sidonal, said to be an inner anhydrid of quinic acid, showed 25 per cent. of free quinic acid.

Phagocytin, said to be a solution of pure nucleinate of sodium, showed the presence of about 5 per cent. of arsenic in organic combination.

Pyrenol, advertised as a chemical compound, and furnished with an impossible formula, was shown to be a mere mechanical mixture. According to its formula its analysis should show the equivalent of 29 per cent. of thymol and 10 per cent. of ash, when in fact it shows only 0.2 to 0.3 per cent. of thymol and 34-35 per cent. of ash.

In reviewing the proposals for the establishment of a central institution for testing secret and new remedies, Thoms insists that only a public official institute is really competent to assume the responsibility involved in such tests. He states that it should be under the control of the imperial government and not confined to any one state. If this were done and a law passed requiring the correct labeling of medicines, many of the evils connected with the manufacture and promotion of medicines might be reduced or entirely removed.

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[1] Therap. Monatsh., December, 1908.

[2] Deutsch. med. Wchnschr., 1908, xxxvi.

An Eighteenth Century Protest Against Twentieth Century Conditions

As a protest against the polypharmacy of his time and as foreshadowing the opinions of some who were to live more than a century later, the quotation that follows is of interest. It was written in 1774 by William Rowley, an English physician of eminence, who after distinguished service in the army, settled in London, where he acquired an extensive practice:

"On the effects of simple medicines we may form just inferences, but in compounds there is such confusion of substances, that we can not ascertain which relieved the disease, and consequently our conclusions may be erroneous. . . .

"If there was a possibility of reducing the materia medica to about twenty remedies, it would greatly improve the science of medicine. We should soon arrive at certainty on the effects of remedies in every disease. But, while there are some hundreds of insignificant substances constantly used on very precarious principles, and substances diametrically opposite enter the prescriptions of the learned, it is impossible to improve this noble art. The necessity of a reformation in this particular is evident; it might be accomplished by a few men of learning and spirit, of liberal and exalted sentiments."

Correspondence

Bismuth Poisoning

To the Editor:—With reference to the cases of bismuth poisoning reported by Drs. V. C. David and J. R. Kauffman in The Journal, March 27, I desire to report a personal experience which in the future may help to prevent a fatal termination, as happened in their Case 2.

In 1904 I operated on a boy aged 10, for a suppurative appendicitis. A small sinus (drainage tract) which never healed was injected by me in March, 1908, with Beck's 33 per cent. bismuth paste. The entire two ounces entered the sinus which terminated in some perineal pocket. Five days later, the stomatitis and the constant pain at the site of injection caused me to reopen the wound and remove the paste, when the symptoms promptly ceased. Later, the sinus was again repeatedly injected with half-ounce doses with resulting healing at the sinus.

In the report by Drs. David and Kauffman it is difficult to determine to what extent the operations performed in Case 1 December 7 and 13 with removal of some of the paste at each operation, prevented a similar termination in Case 2. Since the patient manifested cerebral symptoms as late as December 21, it would appear that the quantities removed helped materially in rendering the intoxication less severe.

In Case 2, 6 ounces were injected, a rather large initial dose, Beck recommends beginning 3 ounces (*Ill. Med. Jour.*, July, 1908).

In view of the facts that the clinical course lasted 27 days the symptoms increasing in severity till the end; that the patient's condition progressively grew worse, the skiagraph showing the paste in the joint; and, finally, knowing that bismuth is slowly absorbed, as demonstrated by Beck, often remaining in cavities for weeks, would the poisoning not have been arrested as in my case by opening the sinus and the joint freely and removing the paste as much as possible? This could have been done with Schleick's local anesthesia.

In conclusion: In cavities and joint opening on the body surface by long tortuous sinus or sinuses, the initial injection should be of a small quantity till the tolerance is assured. Should the symptoms of bismuth poisoning arise, the early removal of the paste in indicated.

Victor J. Baccus, M.D., Chicago.

This letter was submitted to the authors of the article mentioned and Dr. David makes the following reply:

In our article in The Journal, March 27, we stated that it was but a preliminary report, to be followed by another giving more detailed treatment of the two patients.

Dr. Baccus refers to cerebral symptoms in Case 1. In a case of years' standing as this one was, having institutional care, and exhibiting mental symptoms, it may be doubted whether the bismuth or other factors were responsible.

In regard to Case 2, the question of operation was discussed several times in consultation with several members of the staff and was deemed inadvisable because of the patient's poor condition; because a considerable amount of the paste had been previously removed by irrigation, etc.; because it was considered of doubtful value to open up a hip joint in presence of a secondary infection; and lastly, because the bismuth was shown by the skiagraph to connect with the diseased head of the femur and not to lie in the capsule of the hip.

Dr. Kaufman and I expect to read a report of these cases, with treatment, etc., before the surgical section of the Illinois State Medical Society at Quincy.

In conclusion I think Dr. Baccus is right in saying that early evacuation is indicated in cases in which the operation would be less harmful than the poisoning.

International Medical Congress

To the Editor:—I have received a letter from the secretary-general of the International Medical Congress to be held at Budapest, Aug. 29 to Sept. 4, 1909, an abstract of which I add: "Authors of communications have until May 15 to send in their papers. If not able to prepare their papers by that date they may present them at the time of the congress, with the difference that such communications will be published in the second volume of the Congress Reports."

J. H. Musser, Philadelphia.

Queries and Minor Notes

Anonymous Communications will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed.

KARLINSKI'S NASAL SECRETION BACILLUS

To the Editor:—Kindly publish a description of the morphology, characteristics, identification, staining, etc., of Karlinski's nasal secretion bacillus.

A Subscriber.

Answer.—This question apparently refers to an acid-proof bacillus found by Karlinski in the nasal secretion of a 43-year-old Mohammedan and described in *Centralbl. f. Bakt.*, 1901, 29, p. 521. The organism is a short, rather plump, bacillus with pointed ends. In stained preparations of the secretion it appeared in groups of two or three cells, sometimes more. It was different from the bacilli of tuberculosis and leprosy in being of greater diameter. Karlinski succeeded in cultivating the bacillus on various glycerin-agar media, on which it developed grayish-yellow colonies; the growth was more rapid and luxuriant on media of slightly acid than on those of alkaline reaction. Development took place slowly and after three weeks the colonies had reached a diameter of only 2 mm. The color of the growth changed gradually to orange-red and then to copper-red, the consistency of the growth was distinctly slimy. Alkaline meat broth was quickly clouded, no pellicle was formed, but a yellowish sediment was produced. All cultures emitted a distinct sweetish odor. On potato, a slimy, gray, tenacious film was formed. Although the temperature optimum was 37 C., growth occurred also at ordinary room temperature and even, although very slowly, on ordinary nutrient gelatin. Growth occurred in milk, but the reaction of this medium was not altered. The bacillus did not prove pathogenic for mice or rabbits, but killed guinea-pigs in from four to eight weeks when a broth culture was injected intraperitoneally. Nodules were produced but giant cells were entirely lacking. Branched and swollen forms were never observed. When treated with acid or acid alcohol, stained preparations of this organism resisted decoloration even more tenaciously than the tubercle bacillus. Karlinski holds that the morphologic, tinctorial and cultural characters above set forth differentiate without question this bacillus from the tubercle bacillus, the leprosy bacillus and other previously described forms, but nevertheless he does not assign to it any pathogenic significance, and believes that its main importance lies in the possibility of its being mistaken for other bacteria, such as the leprosy bacillus, found in the nasal secretions.

WAR MORTALITY OF JAPANESE

To the Editor:—Kindly give the statistics of deaths in the Japanese army (a) from wounds, (b) from typhoid, (c) from diarrheal diseases, during the recent Russo-Japanese war.

L. B. McBrayer, Asheville, N. C.

Answer.—The exact information asked for is not available. The following statistics, however, are quoted from the report of Major Charles Lynch, U. S. Army, who was attached to the armies in Manchuria as a military observer for the United States:

Japanese Casualties During the Russo-Japanese War

Official Japanese statement to include the entire war

Killed in battle	47,387	
Died of wounds	11,500	
Wounded, but recovered	161 925	
Total killed and wounded		220 812
Died of sickness	27,158	
Sick, but recovered	209,065	
Total sick		236,223
Total of killed, wounded and sick		457,035
Total of fatal casualties		85,045

These figures relate to the field only, not including cases among the troops in Japan or Formosa, and they may be slightly altered when all the reports of hospitals are compiled. Of those who succumbed to disease nearly three-fourths died in the field and one-fourth after reaching home. To find the total number of killed in battle and patients treated the following additions must be made:

Total of killed, wounded and sick in the field	457 035
Patients treated at home	97,850
Russian prisoner patients	77,803
Grand total	632 688

The above figures do not include slight cases remaining with the Japanese regiments. In April, 1906, when these figures were published, the Japanese missing had been reduced to 3,000. In the Chinese-Japanese war cases of contagious diseases comprised 14 per cent. of the total number of patients, while in the recent war such cases occurred in but 3.7 per cent. of patients. In the former war 4.21 per cent. of all sickness resulted from frostbite, and in the latter 0.35 per cent. The improvement noted in the Russo-Japanese war in beriberi was not great, however. In peace only 0.44 per cent. of the army is afflicted with this disease, in the Chinese-Japanese war 18 per cent. suffered from it, and in the Russo-Japanese war 16 per cent.

REPORT OF THE PRESIDENT'S HOMES COMMISSION

To the Editor:—The references in The Journal to the interesting matter contained in the Reports of the President's Homes Commission, make me anxious to get a copy. As I have failed to secure one by applying to my congressman, I am anxious to know whether there is any other source through which this valuable work may be obtained.

C. P.

Answer.—We understand that, while the regular edition of the commission's report has been exhausted, a limited number of copies are at the disposal of the President's Homes Commission, which may be addressed at 923 H street, Washington, D. C. These books, we believe, will be distributed as long as they last.

FATAL BURN ON EVE OF DEATH FROM APPENDICITIS—AN ACCIDENT INSURANCE CASE

To the Editor:—The letter from Dr. Robert T. Morris in The Journal March 13 recalls an interesting case that occurred in my practice a number of years ago.

A man, aged about 50, with feeble digestion and far advanced in Bright's disease, developed recurrent appendicitis. I was advised not to operate, as the risks were too great. One evening I was called by the attending physician, who reported a typical case of acute appendicular perforation with shock. I hurried to the home of the patient, full of anxiety as to what might be surgically right and proper under the circumstances, only to find that in the meantime he had been fatally burned by the accidental explosion of a spirit lamp, which he had been in the habit of using to induce perspiration. On learning the facts I reported the case to the coroner. The victim of the accident carried $15,000 accident insurance and only $2,000 regular life policies.

While death in any event was only a few hours distant, there can be no question that he died by an accident, for which the insurance companies were responsible. The facts have not heretofore been reported.

C. R.

The Public Service

Army Changes

Memorandum of changes of stations and duties of medical officers, U S Army, week ended April 10, 1909

McCulloch, C C, Jr, major relieved from duty with the Isthmian Canal Commission, and ordered to duty in the Philippine Islands

Ashburn, P M, major, assigned to temporary duty in the office of the Surgeon General

Gilchrist, H L, major, granted an extension of 10 days to his leave of absence

Hoff, J V R, col, ordered to Forts Wayne, Mich Thomas, Ky, and Benjamin Harrison, Ind, on business pertaining to the Medical Department

Carter, E C, lieut col, granted leave of absence for 15 days

Heysinger, J D, capt, granted leave of absence for 21 days

McAndrew, P H, capt, granted leave of absence for two months

Murray, Alexander, capt ordered to San Francisco, Cal, to sail May 5, for Philippine service

Reno W W, capt, relieved from duty in the Philippines Division and assigned to duty as surgeon of the transport *Kilpatrick* on its next voyage to the United States

Richards, R L, capt, granted leave of absence for 10 days

Nichols H J, 1st lieut, relief from duty in the Philippines Division deferred for three months

Stockard, I K, M R C, honorably discharged from the service, his services being no longer required

Cutliffe, W. O, M R C, granted leave of absence for two months

Navy Changes

Changes in the Medical Corps, U S Navy, for the week ended April 10, 1909

Pickrell G, surgeon detached from the Bureau of Medicine and Surgery Navy Department, and ordered to duty in connection with the fitting out of the *Solace*

Wheeler, L H, P A surgeon, detached from duty at the Naval Training Station Narragansett Bay, R I, and ordered to instruction at the Naval Medical School, Washington D C

Foster T G, asst surgeon, detached from duty at the Naval Hospital Narragansett Bay R I, and ordered to instruction at the Naval Medical School, Washington, D C

Olson, G M asst surgeon detached from the Naval Recruiting Station ordered to instruction at the Naval Medical D C

Riker rgeon, detached from instruction at the Naval shington, D C, and ordered to the *Franklin*

Ziegler, J G, acting asst surgeon, detached from instruction at the Naval Medical School Washington, D C, and ordered to duty at the Naval Hospital, Pensacola, Fla

Harlan T acting asst surgeon detached from instruction at the Naval Medical School Washington D C, and ordered to the Naval Recruiting Station Pittsburg, Pa

Clark G F acting asst surgeon detached from instruction at the Naval Medical School, Washington D C, and ordered to the Naval Hospital, Narragansett Bay, R I

Taylor J S, surgeon, detached from the Naval Hospital, New York, N Y, and ordered to the *New York* when commissioned

Smith, C W asst surgeon, detached from duty at the Naval Hospital, Philadelphia, and ordered to the Naval Hospital, Norfolk Va

Strite, C E asst surgeon, detached from the Naval Hospital, Norfolk, Va and ordered to instruction at the Naval Medical School Washington, D C

Phelps J R, asst surgeon, detached from the *Yankton* and ordered to the *New York* when commissioned

Cole, H W asst surgeon, detached from the Navy Yard, Charleston, S C, and ordered to the *Yankton*

Kerr, W M acting asst surgeon detached from instruction at the Naval Medical Schol Washington, D C, and ordered to the Naval Training Station, Narragansett Bay, R I

Public Health and Marine-Hospital Service

List of changes of stations and duties of commissioned and other officers of the Public Health and Marine Hospital Service for the seven days ended April 7, 1909

Brooks, S D, surgeon, granted 2 days' leave of absence en route to station

Moore, Dunlop P A surgeon, granted 30 days' leave of absence from April 3 1909

Salmon, Thomas W, P A surgeon, granted 2 days' leave of absence from March 8 1909

Herring, R A asst surgeon granted 1 day s leave of absence in March, 1909, under paragraph 191, Service Regulations

Fogarty, J N acting asst surgeon, granted 2 days leave of absence from March 26, 1909

Foster, S B acting asst surgeon, granted 7 days' leave of absence from April 19, 1909

Grace, John J, acting asst surgeon, granted 2 months and 21 days extension of leave of absence, without pay, from April 10, 1909

Hough I S, acting asst surgeon, granted 30 days' extension of annual leave on account of sickness from Feb 1, 1909

Hough, J S, acting asst surgeon, granted 30 days leave of absence from March 3, 1909 and 4 months leave of absence, without pay, from April 3 1909

MacCaffey, W B, acting asst surgeon, granted 1 day s leave of absence in March, 1909, under paragraph 191, Service Regulations

Smith, W S acting asst surgeon, granted an indefinite leave of absence without pay

Wetmore W O acting asst surgeon, granted 1 day's leave of absence, March 17, 1909

Wetmore, W O, acting asst surgeon, granted 7 days' leave of absence from March 22, 1909, under paragraph 210, Service Regulations

BOARDS CONVENED

Boards of medical officers were convened to meet on April 5, 1909 for the purpose of making physical examination of applicants for the position of cadet in the Revenue Cutter Service, as follows

Milwaukee, Wis Surgeon J O Cobb, chairman, Acting Asst-Surgeon W E Fox, recorder

Wilmington, N C Acting Asst Surgeon Thomas M Green, chairman, Acting Asst Surgeon W D MacMillen, recorder

Boards of medical officers convened to meet on April 15, 1909, for the purpose of making physical examinations of officers of the Revenue Cutter Service for promotion, as follows

New York, N Y P A Surgeon C W Vogal, chairman; Asst Surgeon F A Ashford recorder

Norfolk, Va Surgeon C P Wertenbaker, chairman; Acting Asst Surgeon R W Browne, recorder

Newbern, N C Acting Asst Surgeon F Duffy, chairman; Acting Asst Surgeon P del V Atilles, recorder

Jan Juan, P R P A Surgeon S B Grubbs, chairman; Acting Asst Surgeon P del V Atilles recorder

Boston, Mass Surgeon L L Williams, chairman; P A Surgeon T W Salmon, recorder

Port Townsend, Wash Surgeon W G Stimpson, chairman; Acting Asst Surgeon L T Seavey, recorder

Health Reports

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, *Public Health and* Marine Hospital Service, during the week ended April 9, 1909

SMALLPOX—UNITED STATES

California Oakland Jan 7 31, 2 cases, Feb 1 March 21, 3 cases San Francisco, March 13 20, 1 case

District of Columbia Washington March 20 27, 1 case

Illinois Danville, March 21 28, 7 cases, Springfield, March 19 26 3 cases

Indiana LaFayette, March 22 29, 2 cases; South Bend, March 20 27, 1 case

Kansas Kansas City, March 20 27, 4 cases

Kentucky Covington, March 20 27, 5 cases; Lexington, 3 cases, Paducah, 1 case

Michigan Detroit, March 20 27, 1 case, Saginaw, March 13 27, 3 cases

Missouri Kansas City, March 20 27, 2 cases, St Louis, March 20 27, 2 cases

Montana Butte March 16 23, 3 cases

Nebraska South Omaha, March 20 27, 1 case

New Jersey New Brunswick, March 20 27, 2 cases

Ohio Cleveland, March 19 26, 1 case

Tennessee Fayette County, Dec 1 March 2, 200 cases, Memphis, Feb 20 March 27, 53 cases, Nashville March 20 27, 1 case

Texas Houston, March 20 27, 4 cases, Galveston, March 19 26, 1 case San Antonio March 20 27, 2 cases

Washington Bellingham, Jan 20 March 20, 3 cases, Spokane, March 13 20, 1 case

Wisconsin La Crosse, March 20 27, 3 cases, Racine, March 20 27, 5 cases

SMALLPOX—INSULAR

Philippine Islands Manila, Feb 6 20, 7 cases, 1 death.

SMALLPOX—FOREIGN

Arabia Aden, Feb 14 22, 1 death

Brazil Rio de Janeiro, Feb 14 28, 33 cases, 22 deaths

Canada Halifax, March 13 20, 6 cases

France Paris, Jan 23 30, 6 cases

Great Britain Bristol, March 6 13, 2 cases

India Bombay, Feb 23 March 2, 16 deaths; Calcutta, Feb 13 20, 146 deaths, Madras, Feb 20 26, 4 deaths, Rangoon, Feb 13 20 3 deaths

Italy General, March 7 14, 5 cases; Naples, March 6 13, 26 cases, 6 deaths

Japan Kobe, Feb 27 March 6, 1 case 1 death

Martinique Fort de France, Feb 27 March 6, 2 cases

Mexico Mexico City, Feb 6 27, 54 deaths, Monterey, March 14 21 3 deaths, Veracruz, March 6 20 4 cases

Netherlands Rotterdam, March 6 13, 1 case

Southeast Africa Lourenco Marquez, Jan 1 31, 1 death

Spain Barcelona, Feb 14 March 7, 12 deaths, Valencia, Feb 27 March 12 9 cases, Vigo, March 6 13, 1 death

Straits Settlements Singapore, Jan 23 Feb 13, 4 deaths

Turkey Bassorah, Feb 27 March 6, present, Constantinople, Feb 28 March 14, 6 deaths

YELLOW FEVER

Barbadoes March 6 27 10 cases 3 deaths

Brazil Manaos, Feb 20 27, 1 death, Para, Feb 27 March 6, 3 deaths

CHOLERA—INSULAR

Philippine Islands Provinces Feb 6 20, 271 cases 178 deaths

India Calcutta, Feb 13 20 28 deaths, Madras, Feb 20 26, 1 death, Rangoon, Feb 13 20, 8 deaths

Russia Jarcalov, March 13 7 cases, Rubinsk, March 13 20, 7 cases, St Petersburg, March 12 19, 41 cases 7 deaths

Brazil Rio de Janeiro Feb 13 28, 4 cases, 1 death

Chile Antofagasta, Feb 28, 15 cases, Arica, March 9, present, Iquique, March 7 14, 32 cases in lazaretto

Egypt General, March 11 18, 5 cases, 5 deaths

German East Africa Dar es Salaam, Oct 10 Jan 7, 7 cases, 5 deaths

India General, Feb 6 13, 3,803 cases, 3,162 deaths; Bombay, Feb 24 March 2, 153 deaths, Calcutta, Feb 13 20, 28 deaths; Rangoon, Feb 13 20, 16 deaths

Japan Kobe, Feb 20 March 6, 2 cases, 1 death

Peru General, Feb 28 March 13 65 cases, 33 deaths; Callao, March 1 14, 2 cases, Lima department, March 1 14, 13 cases, 3 deaths.

Society Proceedings

COMING MEETINGS

AMERICAN MEDICAL ASSOCIATION, ATLANTIC CITY, JUNE 8-11.

Alabama, Medical Assn. of State of, Birmingham, April 20-23.
American Gynecological Society, New York, May 27-29.
American Neurological Association, New York, May 27-29.
American Pediatric Society, Lenox, Mass., May 27-28.
American Therapeutic Society, New Haven, Conn., May 6-8.
Association of American Physicians, Washington, D. C., May 11-12.
Arizona, Medical Association of, Prescott, May 19-20.
Arkansas, Medical Society of, Pine Bluff, May 18-21.
California, Medical Soc. of State of, San Jose, April 20.
Connecticut State Medical Society, Hartford, May 26-27.
District of Columbia, Medical Assn. of, Washington, April 27.
Georgia, Medical Association of, Macon, April 21.
Illinois, State Medical Society, Quincy, May 18-20.
Iowa, State Medical Society, Dubuque, May 19-21.
Kansas, State Medical Society, Emporia, May 5-7.
Louisiana, State Medical Society, New Orleans, May 4-6.
Maryland, Med. and Chir. Faculty of, Baltimore, May 13-15.
Missouri, State Medical Association, Jefferson City, May 18-20.
Montana, State Medical Association, Missoula, May 12-13.
Nebraska, State Medical Association, Omaha, May 4-6.
New Hampshire, Medical Society, Concord, May 13-14.
North Dakota, State Medical Association, Fargo, May 11-12.
Ohio, State Medical Association, Cincinnati, May 5-7.
South Carolina Medical Association, Summerville, April 21.
Texas State Medical Association, Galveston, May 11-13.

AMERICAN ASSOCIATION OF PATHOLOGISTS AND BACTERIOLOGISTS

Ninth Annual Meeting, held in Boston, April 9-10, 1909

The President, DR. HAROLD C. ERNST, Boston, in the Chair

Gross Blastomycotic Lesions of Bones and Brain

DR. E. R. LE COUNT, Chicago: Two years ago but eleven cases had been reported; now I know of thirty-three cases. This increase of 200 per cent. in two years is largely due to reater frequency of recognition by clinicians. The affection mainly characterized by cutaneous lesions, but involvement f bone is important. The vertebræ are most frequently attacked, bones of the wrist and the ankle being next in order. Statements as to the site of lesions must be modified, however, by the fact that no instance of the complete examination of the skeleton of any one subject is on record. One type of brain involvement is in the form of minute nodules resembling tubercles, and it is possible that further resemblances to tuberculosis may be shown. Cultures of the blastomyces from the bones and other systemic lesions differ in no essential way from those of skin lesions.

Histology of the Sweat Glands in Chronic Nephritis

DR. HERBERT U. WILLIAMS, Buffalo: This study was undertaken because from the earliest ages faith has been placed in the efficacy of active skin excretion in cases of nephritis and because the excretion, even of urea by the sweat glands, has been described. Specimens from seventy cases of various types of chronic nephritis were examined, skin from the sole of the foot being examined as a routine measure with the addition, in half of the cases, of skin from the anterior abdominal wall. Alcohol fixation, paraffin embedding and hematoxylin-eosin staining gave the most satisfactory results. Various conditions were found, including desquamation of epithelium, cystic dilatation of tubules, moderate dilatation of ducts, atrophy of tubules and the presence in tubules of material resembling casts as found in the kidney. Thrombosis of arteries and veins and *arteriosclerosis* of the arteries of the skin were also present, the latter condition in fourteen cases. A condition that may be of importance was the apparent formation of two or three layers of cells in the tubules, or at least an increased number of cells if not in regular layers. The actual condition was difficult to determine, but the impression obtained is that the process is an actual multiplication of cells which does not, however, prove that there is a functional hypertrophy of the glands.

Chronic Inflammatory Enlargement of the Lymphatic Glands

DRS. C. W. DUVAL and C P. HOWARD, New Orleans: The patient was a woman who had rheumatism for six months before the cervical glands began to enlarge. This enlargement became general, the spleen also being slightly increased in size. Tuberculin reaction was negative. There was secondary anemia with moderate leucocytosis, at first a lymphocytosis, later a polynucleosis. Removed glands showed the histology of Hodgkin's disease as described by Reed and Longcope. Nine months after the beginning of glandular enlargement, the patient died. Autopsy showed no evidence of tuberculosis. The spleen was still enlarged, microscopically showing chronic splenitis. The glands histologically showed four stages in the process: 1. A great number of mononuclear endothelioid and mononuclear giant cells, plasma cells and eosinophiles. The lymphadenoid hyperplasia described by Reed and Longcope was lacking. 2. Multinuclear giant cells were prominent. 3. There were a few multinuclear cells and fibrous tissue was increased. 4. There was almost complete replacement of gland by fibrous tissue. Bacteriologically, cultures from glands and inoculations into guinea-pigs were negative and sections of tissue contained no bacteria. The diagnosis, according to the common naming, was Hodgkin's disease, with neither tuberculosis nor lues as a possible etiologic factor. The histology indicated a chronic inflammatory process. A better term than Hodgkin's disease, which should be excluded because of its giving rise to controversy, is granuloma, or, as the cause is unknown, cryptogenic granuloma. The histology justifies regarding this as a distinct disease.

An Unusual Form of Amebic Dysentery

DR. HARRY T. MARSHALL, Charlottesville, Va.: The specimen shown was obtained from a male Filipino who died from intestinal hemorrhage after being ill but ten days or two weeks. The whole colon is studded with nodules up to 12 or 15 mm. in diameter, the tops of some being necrotic. Microscopically, the mucosa over the nodules is lost and fibrin and leucocytes extend into the submucosa. The nodules contain many amebas, but no bacteria. I have found no other specimen of this type, even in museums, and but few writers mention such a condition. I regard it as an early case which lacks the extensive necrosis and ulcer formation so commonly seen.

DISCUSSION

DR. W. T. COUNCILMAN, Boston: This appears to have been a typical case except as to its acuteness, which makes it specially interesting. The possibilities are that it was caused by amebas with unusual powers of multiplication or occurred in a person with but little resistance.

Reinoculation and Metastasis in a Rat Cancer

DRS. SIMON FLEXNER and J. W. JOBLING, New York: The tumor was not a rapidly growing one and reinoculations were not exceedingly difficult. A table giving the summary of inoculations in numerous rats, grouped in thirty-day periods, showed but little difference between reinoculations in those with metastases and in those lacking the secondary growths. In some features the results are contrary to those obtained by Ehrlich.

DISCUSSION

DR. F. P. GAY, Boston: Results in inoculation experiments must vary from time to time, as both the animals and the tumors vary. The individuals in one series can be compared much better than can those of separate experiments.

Functional Hyperplasia of the Mammæ Associated with Syncytioma Malignum of the Testicle

DR. A. S. WARTHIN, Ann Arbor: The subject was a man of 34, father of two children, with no evidence of mixed sexual characters. Following a blow, a tumor the size of a goose egg developed in one testicle. At the same time the breasts enlarged, appearing like those of a woman in early pregnancy. One was removed under the supposition that a new growth was present. After the testicle was removed the remaining breast diminished in size, but later enlarged again as tumor metastases developed. The man finally died. The tumor of the testicle was typical, with its Langhan's cells and masses of syncytium. Autopsy showed metastases in kidney, liver, lungs, brain, stomach and intestine, the immediate cause of death being hemorrhage from the ulcerated tumors in the alimentary tract. In addition, in front of the aorta, between the kidneys, there was a tumor of the cystadenoma type found commonly in the ovary; this contained also some dermoid elements, but no syncytium. The breast removed at operation showed active growth of connective tissue, but no new acini; in some acini cells there was evidence of fat formation. The breast obtained at autopsy showed attempted acinic formation and fatty content of cells. Neither showed a complete functional condition, but there was evidently attempted function. Careful dissection of the sexual tract showed a hypospadias as the only anomaly. The question is, Was the case one of hermaphroditism?

DISCUSSION

Dr. S. P. Beebe, New York, asked Dr. Warthin why he associated the mammary hyperplasia with the tumor of the testicle instead of with the abdominal tumor which resembled those commonly found in the ovary.

Dr. James Ewing, New York: A year ago I reported a complex tumor of the testicle, which, with those of other writers, I regard as teratomatous. In my case there was hyperplasia of the interstitial cells of the testicle, though this is not an essential feature. These tumors suggest the possibility of an ovatestis in man as well as in animals.

Dr. A. S. Warthin: Coincidence of growth of mammæ and testicular tumor, then subsidence in the remaining breast after removal of the testicle, and a second hyperplasia during metastases, led me to associate the two. All the curious tumors of the testicle are teratoid. The best explanation regarding my case is that it was hermaphroditism with an ovatestis.

(To be continued)

PHILADELPHIA COUNTY MEDICAL SOCIETY

Regular Meeting, held Mar. 10, 1909

The president, Dr. Frederick P. Henry, in the Chair

Results Obtained by the Subcutaneous Injection of Sea Water

Dr. Theodore Le Boutellier: The therapeutic use of sea water was suggested by the theory of the marine origin of life. This has been studied in France by many investigators, especially Quinton, who by experiments and chemical analysis found sea water solution to be almost identical with blood serum. Injected into the body, it acts as a tonic to the cells and assists in their resistance to bacterial infection: experiments have proved that it is superior to physiologic salt solution. Sea water obtained well out at sea and about forty feet below the surface is diluted with pure water one hundred and ninety parts to eighty-three parts sea water. This is filtered through a Berkfeldt filter, injected subcutaneously under the skin beneath the shoulder or hip in doses of from 10 to 100 c.c., according to age. The effects noticed were increase in appetite, improvement in digestion, the cure of insomnia, gain in weight, and marked improvement in the condition of the skin. The conditions treated included tuberculosis, pneumonia, nutritional diseases of infancy and childhood, chorea and eczema.

Dr. R. Max Goepp: The work of Quinton on the marine origin of animal life, is said to have suggested the use of sea water for therapeutic purposes to the originator of the method, Dr. Robert Simon, of Paris. The dearth of experimental work on the comparative action of isotonic sea water and physiologic salt solution makes it difficult to arrive at any conclusion in regard to the rationale of the treatment. The dosage has not been determined. Working with adults, I have administered from 3 to 6 ounces three times a week, and in some cases as much as 10 and 12 ounces. In the 11 cases here reported, the patients were selected for the treatment on account of some nutritional disturbance, underweight, obesity (diabetic), constipation, diarrhea or other symptoms referable to the digestive system, or on account of a skin affection. The treatment was given for periods varying from 3 to 12 weeks. The results were inconclusive. No change in body weight (except a loss in the case of one patient who was under weight) or any other objective symptom was noted, one case of lupus erythematosus being excepted in which some improvement was brought about by the treatment. I conclude that for the present the effects obtained all have reference to the patients' suggestive sensations, and can without difficulty be attributed to the suggestive action of a new and unusual therapeutic procedure.

Therapeutic Value of Physiologic Salt Solution

Dr. Horatio C. Wood, Jr.: In cases of circulatory weakness due to hemorrhage or shock or other vasomotor conditions the injection of salt solution is a valuable mode of treatment. When, however, the trouble is due to heart failure the increase in the quantity of fluid means an added strain on the heart and is therefore contraindicated. The use of saline infusion in cases of toxemia with the idea of increasing the rapidity of elimination is founded on an erroneous conception. When a poison is introduced into the system it unites to form new compounds with the cell protoplasm and this molecular union must be broken up before the poison can be eliminated. Salt solution is unable to do this. Experimental studies on the lower animals have demonstrated that salt solution has no specific action in either bacterial or vegetable poisonings. It has, however, a field of usefulness for the relief of certain symptoms, as circulatory failure, occurring in the course of some cases of infectious fevers.

Discussion on Use of Sea Water

Dr. Thomas S. Githens: If it be true that diluted sea water, when injected, has an effect different from that of normal saline solution, it is probable that this difference depends on the substances other than sodium chlorid which it contains. Sea water contains varying amounts of magnesium, calcium and potassium salts, each of which has a profound influence on the function and nutrition of the tissues. It has been found, for instance, that the isolated heart of the turtle will beat for only a short time in normal salt solution, but if placed in such a solution to which minute amounts of calcium and potassium salts have been added, it may continue to beat for several days. In some experiments in this direction which I am performing, I have found that very minute alterations in the amount of calcium or potassium will prevent the contractions in an active heart or renew them when they have ceased. I would suggest, therefore, that those who are doing this work have their samples analyzed, as some lots of sea water contain five or six times as much calcium and potassium as others, and should compare their results with those obtained by the injection of a solution of these salts in same proportions, and also with the results to be obtained from the injection of Ringer's solution, which is supposed to agree with the salt content of serum, and which contains sodium chlorid 0.8 per cent., calcium chlorid from 0 03 to 0.04 per cent., potassium chlorid 0.024 per cent. This would be very close to some of the analyses of sea water, if diluted to isotonicity. The statement that sea water is less beneficial if boiled certainly requires confirmation.

Dr. Jay F. Schamberg: When Dr. Robert Simon was in Philadelphia I saw a number of photographs illustrating a variety of conditions treated by him by this method, and the results were in many respects marvelous. It is possible that the use of sea water may stimulate the nutritional and reparative forces of the body and may be of distinct advantage in certain diseases, but it is too much to expect that we may find in this new measure a cure for a large variety of human ills. Regarding the psychic factor in cases of alleged improvement, I recall a case of eczema of the arms in which the patient declared herself to be improved from the first injection, and yet in which the appearance was distinctly and progressively worse.

Dr. Charles E. deM. Sajous: The important feature in all these conditions is the influence of sea water or the physiologic salt solution on osmosis. The case mentioned by Dr. Schamberg recalls to me a case of aphonia in which the electric current was applied to the larynx with the immediate restoration of the voice. After the patient, a young girl, had left the office, however, I found that there was not a particle of current, as my battery was not working.

Book Notices

Black-Water Fever. By Captain S. R. Christophers, M.B., I.M.S., and Dr. C. A. Bentley, (Officers on Special Duty). No. 35, of Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India, being the First Report of the Advisory Committee Appointed by the Government of India to Conduct an Inquiry Regarding Black-Water and Other Fevers Prevalent in the Duars. Boards. Pp. 239. Simla: Government of India Monotype Press, 1908.

This is an extensive monograph of 239 pages, giving a comprehensive view of the nature of blackwater fever, its distribution, theories concerning its cause, the larger part (all but the first 66 pages) being given over to the development of their own theory.

Four main theories are cited: First, that blackwater fever is a pernicious form of malarial attack. This has been shown to be incorrect by the fact that there is no evolution of the malarial parasites coinciding with the attack of blackwater fever. Second, that blackwater fever is quinin intoxication. Experience is altogether against the conception that quinin alone may be its cause. Quinin in non-malarial countries is not known to have such an action. Third, that blackwater fever is a distinct disease, due to some specific organism. No parasite other than the malarial, however, has been found in cases of the disease. Piroplasmas in particular have been sought for because of the part they play in hemoglobinuric fevers in other animals. Fourth, that blackwater fever is the result of an induced condition, brought about by repeated malarial infection lasting over a certain time. This view was first brought forward by Stephens and Christophers, and the investigations presented apparently are the outcome of this conception.

A great deal of evidence is given showing that the disease does not occur except in relation to malaria. It is held as possible that quinin may be influential in precipitating attacks "acting in conjunction with a condition induced by previous intense malaria."

In the course of their work the authors reduced the problem to two possibilities: the one, that blackwater fever is a special disease caused by an independent micro-organism; the other, that it is a condition induced by repeated attacks of malaria, but in itself is not malaria.

The first of these possibilities was discarded because no organism other than occasional malarial parasites could be found either in the peripheral or visceral circulation, and because of the general conditions which show the intimate relation of the disease to malaria.

Inasmuch as the most striking features of the disease are acute destruction of the blood, hemoglobinemia and hemoglobinuria, Christophers and Bentley instituted detailed studies, regarding blood destruction by different agents in and out of the body, and the resistance and tonicity of the red cells in malaria and blackwater fever.

They distinguish two types of blood destruction in the body: First, that in which the erythrocytes are destroyed by phagocytic cells, a process to which they give the name of "erythrokatalysis"; and, second, the solution of the cells in the plasma, to which they apply the term "lysemia."

In malaria the destruction of the blood may be so great as to amount to 1,000,000 per centimeter in one day, yet no hemoglobinuria results. The authors assume that this is because the process of blood destruction in malaria is one of erythrokatalysis exclusively, rather than lysemia. They speak of the "specially pronounced action of the malignant tertian parasite in bringing about erythrokatalysis" (p. 127). As an analogy they cite the observation of Levaditi and others, to which are added experiments of their own, that immune hemolytic sera cause anemia, not by destroying erythrocytes in the circulation, but by inducing their phagocytic destruction (erythrokatalysis). They were rarely able to cause hemoglobinemia and hemoglobinuria by the injection of hemolytic sera.

They come to the conclusion, therefore, that the essential method of destruction in blackwater fever is one of lysemia, in spite of the fact that extensive destruction by phagocytosis also takes place. If destruction were exclusively by means of phagocytic cells, no hemoglobinemia or hemoglobinuria would result.

Through extensive experiments they seem to show satisfactorily that the lysemia does not follow because of an alteration of tonicity on the part of the erythrocytes, and that there are no changes in the osmotic pressure of the plasma to account for the blood destruction.

It seems sufficiently logical, in view of the work of the past decade on hemolysins, that the attention of the authors should be directed to the possibility that the prolonged blood destruction of chronic malaria may cause the body to form autohemolysins, which for some unknown reason assume activity at the time of the attack of blackwater fever. Unfortunately, they have not been able to adduce evidence of a direct character showing that this condition exists in blackwater fever. But through an extensive study of bloods and serums in health and in various diseases, the important fact was disclosed that normal bloods frequently contain a lysin (an isolysin) for some other human bloods. Christophers and Bentley speak of two classes of bloods, A and B. In A, which is blood from healthy individuals, the serum contains hemolysin (amboceptor and complement) for the erythrocytes of class B; but the erythrocytes of class A are not susceptible to the accompanying hemolysin, i. e., the hemolysin which is present in the serum of class A blood. In B the erythrocytes are susceptible to the isolysin referred to above, but the serum in this class contains none of the isolysin. On the contrary the serum in B contains "a powerful antibody, which appears to be of the nature of an anticomplement or antiamboceptor directed against the complementophile group of the amboceptor."

The authors suggest that if, in acordance with the hypothesis, the hemoglobinuria of blackwater fever is caused by an autolysin, the attack may be precipitated by the sudden pouring into the circulation of a large amount of complement, through some unknown stimulus and from some unknown source, which may then activate a great quantity of amboceptors at once. Although the work leads to no positive demonstration of a causative agent for the disease, it is valuable as a basis for further studies.

It is to be hoped that the probable relation of quinin to the precipitation of attacks will be studied by these zealous investigators at some future time.

Tono-Bungay. By H. G. Wells. Cloth. Pp. 460. Price, $1.50. New York: Duffield & Co., 1909.

In the past, Mr. H. G. Wells has been best known by his scientific romances and his sociologic essays. In the future he is likely to be remembered by a novel—his latest and biggest book, "Tono-Bungay." In reading this narrative, which is written in the first person, one feels that personal interest in the narrator that is inseparable from the perusal of "David Copperfield," while the author's philosophy of life recalls in many ways some of Olive Schreiner's finer passages in her "Story of an African Farm." Briefly, "Tono-Bungay" is the story of a "patent medicine" of that name and the life history of its inventor, Edward Ponderevo, who from being an unknown druggist in an obscure English village, became a Napoleon of finance. "Astraddle on Tono-Bungay he flashed athwart the empty heavens . . . like a stupendous rocket!—and overawed investors spoke of his star. At his zenith he burst into a cloud of the most magnificent proportions." George Ponderevo tells the story: "I was his nephew . . . I made pills for him in the chemist's shop at Wimblehurst, before he began. I was, you might say, the stick of the rocket; and after our tremendous soar, after he had played with millions, a golden rain in the sky . . . I fell again. . . ." The book traces the social trajectory of the two Ponderevos in their splendid passage from obscurity to obscurity.

It is said that Mr. Wells in his earlier days was a druggist, and his story indicates it. None but a druggist or a physician could gauge so clearly the inherent worthlessness of the average "patent medicine." Says the younger Ponderevo, when invited by his uncle to become a partner in the business of exploiting "Tono-Bungay": "The stuff was, I perceived, a mischievous trash, slightly stimulating, aromatic and attractive, likely to become a bad habit and train people in the habitual use of stronger tonics and insidiously dangerous to people with defective kidneys"—surely a description that would fit many a nostrum possessing greater materiality than "Tono-Bungay." But Tono-Bungay became a vast success and on its much-advertised name other "specialties" were put out. "Tono-Bungay Lozenges" for cases of "fatigue and strain," were enormously popular and, says the nephew, "I really do believe there was an element of 'kick' in the strychnin in those lozenges, especially in those made according to our earlier formula. For we altered all our formulas—invariably weakening them enormously as sales got ahead." On the strength of these successes, "with barely a thousand pound's worth of stuff or credit all told," Ponderevo decided to float a company and went to the public to ask for £150,000. "One hundred and fifty thousand pounds—think of it!—for the good-will in a string of lies and a trade in bottles of mitigated water! Do you realize the madness of the world that sanctions such a thing?" But the public subscribed.

Another phase of the proprietary question—in foodstuffs, not medicine, this time—is incidentally touched on. In a conversation between the elder Ponderevo and his nephew's friend, the latter discourses jokingly on the use of horseradish as an adulterant for mustard. The idea of adulteration is not pleasing either to the friend or to Ponderevo, who remarks sententiously that it is "bound to be found out!" But adulteration is so unnecessary. "Why not do up a mixture—three-quarters pounded horseradish and a quarter mustard—give it a fancy name—and sell it at twice the mustard price?" The principle here involved will be recognized by physicians as having been applied to other things than horseradish and mustard, and in other places than the pages of a novel.

The story is a strong one. Mr. Wells' philosophy is a healthy one and the reading of "Tono-Bungay" leaves a pleasant taste in the mouth and the conviction that its perusal has been well worth while.

Hematological Atlas. With a Description of the Technic of Blood Examination. By Karl Schleip, M.D., Scientific Assistant in the Medical Clinic University of Freiburg. English Adaptation of Text by Frederic E. Sondern, M.D., Professor of Clinical Pathology, New York Postgraduate Medical School and Hospital. Half Leather. Pp. 256, with illustrations. Price, $10. New York: Rebman Co.

As an atlas—and this is the real nature of the work—this book is valuable, not to the beginner so much as to the one who is already familiar with the technic of hematology and has had practical experience with it at the bedside. The plates are neat, clearly executed, well colored, artistic and yet true to nature. The descriptions of illustrations are terse yet plain, and brief case histories often add to the interest. The selection of blood preparations has been well made, showing the typical appearances of normal blood, the leucocytoses, the anemias, leukemias, etc., usually in the stained specimen, though occasionally in the unstained. Schleip prefers to make the examination of the unstained specimen between two films and in a hanging-drop chamber, with the blood diluted with physiologic salt solution. The erythrocyte under these circumstances crenates less and shows some peculiarities of form that he believes are more nearly normal than when examined in the ordinary manner. His preference in the way of stain is the Leishman modification of the Romanowsky stain. All the illustrations of stained preparations are from preparations made after this method. While speaking of Schleip's preferences in the way of technic, it may be mentioned that he uses the Sahli hemometer. Whether this accounts for the frequent high hemoglobin findings or not, certain it is that very often an unusually high hemoglobin is recorded as compared to his red corpuscle count. Repeatedly in secondary anemias his color index is more than one.

In general, the author is conservative when it comes to a consideration of mooted questions, yet shows that he has views of his own and is familiar with those of others. Some of the most valuable plates are those in which blood cells of doubtful nature are shown, such as various mononuclear forms, "fragile cells," etc. He hesitates to accept the expression "granular degeneration" of the erythrocyte, feeling that the degenerative character of the granules is not proved. He makes a very positive statement, however—too broad, we think—that this basophilic granulation is invariably present in every case of lead poisoning (p. 105). He is inclined to accept Sternberg's leukosarcomatosis as a reality and to regard the cells found in these cases, which so closely resemble acute leukemia, as true tumor cells and not bone marrow cells. This question, as Schleip says, needs further investigation. The plates of malarial blood, as the one showing trypanosomes, are too few to add much value to the book.

The description of the technic of blood examination is good, so far as it goes, but it is altogether too meager to be of much help to the undergraduate or clinician who is desirous of learning the rudiments of hematology. But as an atlas for class demonstration, as a book of reference and as a valuable addition to the hematologist's library, the work is to be heartily commended.

A System of Ophthalmic Therapeutics. Edited and Chiefly Written by Casey A. Wood, M.D., C.M., D.C.L., Late Professor of Ophthalmology and Head of the Department, Northwestern University Medical School. Cloth. Pp. 926, with illustrations. Price, $7. Chicago: Cleveland Press, 1909.

Dr. Wood has combined the knowledge of the specialist with the functions of the editor to make a work which should be welcomed by specialist and general practitioner alike as serving their needs in a special manner. The volume is chiefly the work of Dr. Wood, but he has availed himself of the services of several collaborators for the presentation of special topics. Such collaboration has been secured in the articles on electricity in eye diseases, the examination of school children, and of railway and other corporation employés, the treatment of general conditions affecting the eye and the nervous diseases that may affect the eye. The first part of the volume presents an ophthalmic materia medica which is remarkable for its completeness and which is not confined to medicines merely, but presents an account of apparatus and devices useful in securing the proper application of remedies to the eye. Then follow special chapters on the various diseases in which the proper medicinal treatment is thoroughly described with numerous cross-references to the sections dealing with materia medica. The preparation of the patient for operation and the induction of anesthesia are described, but other matters relating to operation are excluded by the plan of the book. The book is thoroughly up to date, including references to articles as recent as November, 1908.

The treatment of general and nervous conditions affecting the eye enters a field distinct from the specialty of ophthalmology, and while the advice given is good, the question arises whether devoting 120 pages to what is essentially a treatise on general medicine is not somewhat out of place in a special text-book.

The book is evidently the result of an immense amount of work, is exhaustive and will be a standard for many years to come. It will be a guide to the medical treatment of diseases of the eye on which the general practitioner may depend.

Helps to Medical Diagnosis. (A card system.) By J. T. Asbury, M.D. Price, $2.50. Wabasha, Minn.: J. T. Asbury, 521 Main St.

These cards are intended to serve the general practitioner as a ready means of review in differential diagnosis, not only in home study, but on occasions of doubt in practice. For this purpose it is pointed out by emphasized type that "they can be carried in a pocket case or bag and referred to at any time or place." While this phrase is consonant with the laudable ostensible object of the cards, there seems to lurk in it a sinister suggestion that nefarious possibilities in the examination room are one reason for the existence of such an aid to diagnosis. The cards, 75 in number, are of different colors, according to the classes of diseases which they treat, so that the desired card may be easily selected. Their arrangement seems convenient. The innumerable errors of spelling, however—often of a very serious nature—constitute a great blemish and call for careful re-editing.

CANAL RECORD, Sept 4, 1907, to Aug 26, 1908 Vol. 1, with index. Cloth. Pp 416 Ancon, Canal Zone: Isthmian Canal Commission Printing Office, 1908

This volume contains much interesting reading, particularly for physicians. The fall of the death rate in the Canal Zone from 76 per thousand in July 1906, to 34 per thousand in July, 1907, is significant of the splendid work of the sanitary department. Besides the official reports and circulars, the volume contains notes on social life in the zone, in which clubs for men and women, entertainments, libraries, fraternal organizations, medical societies, public schools and church matters of various denominations figure largely. This information should dissipate from the public mind the belief that the zone is a deadly place, out of the world, to be shunned like the plague. It is now rather a place where life can be spent and work accomplished in fair comfort and enjoyment. This fact is further emphasized by interesting excerpts describing conditions on the isthmus under previous régimes. A recently discovered report by Surgeon Charles S. Tripler, U. S. Army, of a transit of the isthmus made in 1852 by the Fourth Regiment of U. S. Infantry, in which a severe outbreak of cholera occurred, is particularly interesting. The Captain Grant referred to in the report ultimately became General U. S. Grant The book is carefully edited and well made, and does credit to all concerned in its production

TRANSACTIONS OF THE AMERICAN MICROSCOPICAL SOCIETY September, 1908 Vol xxviii Twenty ninth Annual Meeting Held at Ithaca, N Y., June, 1906 Paper Pp 236

The papers included in this pamphlet will be of interest to biologists generally, and some are of special importance to medical men. The president's address traces in an entertaining way the evolution of the projection microscope, beginning with the making of spectacles in the thirteenth century, since spectacles were the predecessors of other optical instruments. This historical study is accompanied by full bibliographic references, much enhancing its value The first article of special interest to the physician is a list of invertebrates noxious to man collected by F. C. Wellman in Portuguese West Africa. The list includes protozoa, worms and insects, the two last classes not being strictly microscopic, but requiring that instrument for their identification. J H. Powers, in "Further Studies in Volvox," touches the question of sex-differentiation for the study of which he regards this animal as especially suited. Data for the Determination of Human Entozoa," by H. B Ward, is a paper of practical clinical importance, especially to the expert in tropical medicine who must keep himself informed on the constantly widening field of intestinal parasites The pamphlet is well printed and excellently illustrated.

PRACTICAL POINTS IN ANESTHESIA By Friederich-Emil Neef, B S B L, M L, M D. New York City Cloth Pp 46 Price, $0 60 New York Surgery Pub Co, 1908

This little book presents the impressions derived from the experience of a practical anesthetist, and as the title states, is made up of practical points Among the most useful points noted are the maintenance of the surgical plane of anesthesia, reflexes, obstructed breathing, indications for stimulation, postoperative distress, and a differential table of the cases which require superficial, moderate and profound narcosis

AIDS IN OSTEOLOGY By Philip Turner, B Sc, M B, M S (Lond), F R C S, Demonstrator of Anatomy Guy's Hospital Cloth Pp 187 Price, $1 25 New York William Wood & Co, 1908

Turner states that his desire has been to prepare a concise compend on osteology for the use of students. The text comprises a description of the various bones of the body together with the articulations, muscular attachments, etc, the matter being largely a compilation from standard text books There are no illustrations. The compact arrangement and convenient size of the volume will commend it to medical students desiring a manual for constant reference.

BLOOD EXAMINATION IN SURGICAL DIAGNOSIS By Ira S Wile, M S, M D, Cloth Pp 161, with illustrations Price, $2 New York Surgery Publishing Co, 1908

This book attempts to enumerate briefly the interpretations possible from blood examinations, particularly that of the white cells. In the first part of the work there is a somewhat elementary discussion of the methods employed. A rather clever classification of anemia is given, but one which, in our opinion, is not quite sharp enough The discussion of the interpretation of the leucocyte count is very good. The necessity for knowledge of the differential counts is strongly emphasized. Besides the blood findings in surgical affections and allied conditions, those in some medical diseases are discussed. With a few exceptions, the illustrations are fair.

THE AMERICAN TROPICS By William Thomas Corlett, Half cloth, boards, top edge gilt Pp 221, with illustrations Price, $1 50 Cleveland: The Burrows Brothers Co, 1908

Dr. Corlett has presented in an entertaining manner the daily record of a voyage through the West Indies The book is well printed and illustrated and makes a volume worth reading and keeping. The reader receives the impressions that Dr. Corlett would make an agreeable traveling companion and that the cruise through the American tropics is full of interest.

Medical Economics

THIS DEPARTMENT EMBODIES THE SUBJECTS OF ORGANIZATION, POSTGRADUATE WORK, CONTRACT PRACTICE, INSURANCE FEES, LEGISLATION, ETC.

McCormack in Virginia

Dr. J. N. McCormack devoted the last two weeks of March to work in Virginia, speaking in eleven cities as follows: Fredericksburg, March 22; Petersburg, March 23; Norfolk, March 24; Danville, March 25; Roanoke, March 26; Lexington, March 27; Lynchburg, March 29; Charlottesville, March 30; Staunton, March 31; Harrisonburg, April 1, and Winchester, April 2. Both in attendance and in interest and enthusiasm the meetings were the most successful of any which Dr McCormack has yet held Both the profession and the public have been greatly interested and thoroughly aroused, as shown by the following comments:

Dr. E L McGill of Petersburg writes: "His talk was most instructive and made a great impression on the physicians I trust that we shall derive much benefit from it."

The Roanoke *Evening World*, beside an extended account of the meeting, devotes a column to editorial comments, saying, among other things:

> Thousands of Roanokers missed an opportunity last night to hear one of the best addresses on health and public and private methods for promoting health that has ever been given in Roanoke The Y. M C A Hall was crowded full to hear Dr McCormack. . . There ought to have been such a crowding of the Y. M. C. A building and the street outside that the Assembly Hall would have been brought into commission. Instead of the 500 who did hear the address, about three fourths of whom were women, there ought to have been at least 5 000 and half of them men. The Women's Civic Betterment Club and the Academy of Medicine are to be congratulated on bringing Dr. McCormack here . . . Dr McCormack told many things which the public ought to know, and while not all of the citizens of Roanoke were enabled to hear him, there will be few who will be without excuse for not reading his address, which is found in another column.

The Lynchburg *News* says:

> The Y M. C. A auditorium was filled with a thoroughly representative audience of Lynchburg's leading citizens who listened attentively to Dr. McCormack during an interesting speech lasting nearly two hours, during which he was frequently greeted with applause. The address was full of matter calculated to make those who heard it think and think so deeply as to lead to action for the general betterment of the community.

Dr. V. V. Anderson of Lynchburg writes:

> I have been instructed by the medical profession of this city to extend its thanks to the American Medical Association

> for the privilege of having Dr. J. N. McCormack in our midst. Never in the history of the medical profession has so much interest been manifested in medical matters. Dr. McCormack has opened the eyes not only of the public, but of the physicians to the sacred trust imposed on the medical profession. . . . That the public is willing and anxious to know these things and to better existing conditions is evinced by the remarkable enthusiasm which greeted his address in the evening. Leading men asked why physicians had not told these things sooner, saying that the public was willing and anxious to concede everything their physicians wanted. A committee was appointed to arrange for frequent meetings between physicians and the public. . . . The good which Dr. McCormack has done us here in Virginia simply can not be estimated. He has certainly opened our eyes to duties that we have for years neglected, either through ignorance or indifference. His departure will leave a more thoughtful, a more active and a far wiser medical profession.

The Staunton *Daily Leader* devotes two columns to an account of the meeting, saying that:

> For two solid hours last evening Dr. J. N. McCormack addressed a tremendous audience of Staunton's representative men and women at the Beverly Theater on vital questions bearing on the public health, and not for a moment during the lecture was there a sign of restlessness or disinterestedness on the part of the audience.

Under the heading, "A Modern Crusader," the *Leader* publishes a column editorial, showing such broad-minded appreciation of the efforts of the medical profession as represented by Dr. McCormack, that it is quoted herewith in full:

> Dr. J. N. McCormack, who lectured on the prevention of disease at Beverley Theater Wednesday night, is one of the greatest exponents of the gospel of good health that this country has ever produced, and a man better equipped to disseminate the propaganda of sanitation could hardly be found the world over.
>
> The immense audience which heard his lecture recognized this and deplored the fact that all their kith and kindred were not within sound of the speaker's voice.
>
> Dr. McCormack is interesting because he speaks the truth—because he talks entertainingly and convincingly with the facts behind his arguments; because he strikes out fearlessly, exposing sins of omission and commission, hitting a head wherever he sees it; and then pours the oil of his kindness and humanity on the wound he is compelled to make. His object in exposing faults and showing up the fallacies of human acts is not merely to criticize, but primarily to correct. His lecture of over two hours covered a field as broad and expansive as humanity itself. He went over the different professions and pointed out the envy and jealousy of individual members of those segregated, that militated against harmonious action and barred the way of progress. Happily, he said, the medical profession had passed through the worst of this slough and was being wafted to the brighter shore on a reform wave, the like of which has never been seen before in the history of the world. Doctors are organizing and working together for their own advancement, and for that of the cause of humanity, and the science of the prevention and the cure of disease is going forward by leaps and bounds. Physicians recognize this. So do thousands of laymen; but the great men at the head of public affairs, whether they recognize it or not, are slow to admit it, or give their influence to the furtherance of the crusade. The result is that while the Federal Government is spending three out of every four dollars of its revenue on the Army and Navy pensions, for the slaughter of humanity, it spends not one cent for the preservation of human life by the prevention of disease. It spends millions of dollars for the preservation of trees, the promotion of animal husbandry, for the cure and prevention of diseases of plant life, and the dissemination of literature on all these subjects, yet it has appropriated not one single cent for the crusade against the dreadful diseases which are decimating the rank and file of the nation, men, women and children alike. Millions it spends for the preservation of its inanimate flora and fauna and not one cent for the preservation of human life—and this because it has no faith in its doctors and will not heed their warning voice. The United States of America, says Dr. McCormack, the greatest of the great among the nations of the earth, is the only nation of any importance which has no national health bureau, and as a result of this, the little brown men of Japan, a nation classed among the heathen, have a far lower death rate than we, and the health of their army and navy in actual warfare so far outclasses ours that it was a shame and disgrace to this country.
>
> In closing his address, Dr. McCormack advocated the formation of national, state and local health departments, and the frequent public discussion of preventive measures. He is a great crusader, and the memory of his good advice should remain with us and bear fruit to the everlasting benefit of ourselves and our posterity.

POSTGRADUATE COURSE FOR COUNTY SOCIETIES

DR. JOHN H. BLACKBURN, DIRECTOR
Bowling Green, Kentucky

[The Director will be glad to furnish further information and literature to any county society desiring to take up the course.]

Ninth Month—Third Weekly Meeting

EPILEPTIC INSANITY

General Considerations.—Mental symptoms of epilepsy; mental attitude of the epileptic. Classes of insanity induced by epilepsy.

Psychic Degeneration.—Somnolence following attacks becomes more marked; weakens intellectual processes, memory, attention, speech, judgment, concepts, etc. Irritability of temper, hypochondriacal depression, hallucinations, etc.

Epileptic Dementia.—Gradual progress, course, terminations.

Acute Transitory Epileptic Insanity.—Sudden onset, ecstatic or terrifying hallucinations and delusions, disturbance of consciousness, stuporous condition, impulsive acts, dream states, amnesia, abrupt termination; tendency to recurrence.

Chronic Epileptic Insanity.

DEMENTIA

Definition, epileptic, alcoholic, etc., secondary to acute or chronic psychoses, paralytic, senile, primary, etc.

Secondary Dementia.—Symptoms: Defective memory, deficient ideation, feeble judgment, incoherent speech, hallucinations, delusions (emotional), depraved habits, automatic movements. Types, apathetic and agitated. Chronic course.

Senile Dementia.—Heredity, age, sex, strain, cardiovascular disease.

Symptoms: Failure of memory, lack of judgment, negligent in habits, terrifying hallucinations and illusions, persecutory delusions, increase of symptoms at night. Physical symptoms, general senile changes, tremors, aphasic and paraphasic attacks, at times hemiplegia and monoplegia. Complains of pain over body, vertigo, tinnitus, etc.

Pathology: Changes in cranium, meninges, cortex, blood vessels, ventricles and ependyma, cerebrospinal fluid, ganglion cells and association fibers.

Primary Dementia.—Etiology: Age, heredity, physical and mental stress.

Symptoms: Gradual onset, inhibition of thought, idea associations and memory; senses fail to respond to stimuli, becomes physically and mentally expressionless, no excitation whatever, immobile. Physical symptoms. May be complicated by melancholia, stuporous paranoia or neurasthenia.

Course, duration, terminations.

DEMENTIA PRÆCOX (Kraepelin)

Etiology.—Frequency, age, sex, heredity, acute infections.

General Symptoms.—Mental symptoms: Enfeeblement of mind, hallucinations and illusions, orientation, memory, attention and interest, verbigeration, judgment, delusions, emotional deterioration, stereotypy, negativism, automatism. Physical symptoms: Syncope, general and local spasms, transitory paralyses, aphonia, choreiform movements, aphasia, exaggerated reflexes, vasomotor disorders, pulse and temperature, anemia, *changes in weight*.

Types.—Hebephrenic, catatonic and paranoid; symptoms characteristic of each.

Miscellany

Mr. Bernard Shaw on the Medical Profession and the Competitive System

At a meeting of the Medico-Legal Society in London recently, Mr. Bernard Shaw opened a discussion on the socialist criticism of the medical profession. The following report of his remarks is abridged from the account given in the *Lancet*, Feb. 27, 1909:

Mr. Shaw said that he belonged to a generation which began life by hoping more from science than perhaps any generation ever hoped before and possibly might ever hope again. The doctor of the present day had been practically driven into the position of a private tradesman. Nowadays almost all the old professional pretensions and delicacies had been dropped. A doctor gave an opinion and the patient asked him what he owed as boldly as one would a shopkeeper in the street. He could remember the time when one did not do that. This position had never really been recognized, but it must be realized and admitted that as competition in ordinary trade and business had been shown by elaborate theoretic demonstration to be the best thing in the world, medical affairs could form no exception. The idea of a doctor being a tradesman was abhorrent to any thoughtful person, and therefore considerable restrictions were imposed. Advertising in the ordinary way was a thing forbidden. When a professional man had become so successful that he wanted to "weed out" his poorer patients and keep his richer ones, he raised his prices, and also gave up the power forever of recovering his fees in the county court, which was what the ordinary practitioner very largely had to do at the present time. There being no systematic state organization of his profession, naturally the doctor was forced by circumstances—however repugnant to his feelings—to go into the commerce of healing and to become a professional "medicine man"—a professional healer—who sold "cures" because that was what the public went to him for. The great mass of the medical profession had to get what they could and be very glad to get it. One result of competition in the medical profession was that the average doctor of the present day was an abjectly poor man. Four out of five of the adult male population of Great Britain were laborers working for weekly wages. They generally had the benefit of the very best medical advice, went to the hospital, and were operated on by the most skillful surgeons. But a large class went to the clubs. If a doctor had a large club practice and could not afford an assistant, one of the things that would happen to him was that he would give up ever taking off his clothes. The night bell of such a practitioner never stopped. Doctors always had to give a good deal of gratuitous advice, and when their actual work was stopped through illness or anything else, their earning power stopped. The man of business and ordinary tradesman had a great advantage in that respect. Doctors had also appearances to keep up and incurred a great many expenses really for the sake of their patients. It was therefore clear why many of the medical men who were in a tolerable practice were much poorer than they appeared to be, and why the great mass of doctors had to be described as miserably poor men.

The attitude of socialism toward the poor man was always that the poor man was necessarily a bad and dangerous man. The attitude of the man who was not a socialist toward poverty was that poverty was a very good thing, that it developed character, and in other particulars had a beneficial effect. But the really sensible man always regarded poverty as a bad thing and held that the poor man was always dangerous, and that the doctor was a specially dangerous man when poor. The doctor's poverty at the present time drove him necessarily into doing things which he would not do if he were independent. He was—like most men—as honest as he could afford to be. The carrying out of all the various hygienic measures which doctors knew to be scientifically necessary would be enormously expensive, and the slightest attempt to force them on patients or to let patients know that the absence of them was dangerous would cost a man his practice and his livelihood. What the great mass of patients really needed, at the present time, was not medicine or operations, but money, better food and better clothes—and more frequent changes of the latter—and well-ventilated and well-drained houses; but what was the use of prescribing those things to unfortunate people who could hardly keep body and soul together? The patient, not being able to afford scientific treatment, demanded cheaper "cures," and the result was that the doctor had to gratify him in a way. The doctor depended on his patient for his livelihood, and therefore was dependent on the patient's ignorance, and finally had to flatter all his worst delusions. A doctor was like a servant trained in one of those big charitable institutions that train servants. He obtained his training at the hospitals, when he had nurses and antiseptics, and so on. He was placed in a building wonderfully and beautifully built, with no right angles, but beautifully rounded corners; and then, after all that (exactly like the servant), he was suddenly pitched into a poor district and had to go through life in surgically dirty clothes and do his work in surgically dirty rooms with surgically dirty people who could not afford medicines or anything, and he got a sort of skill at it. Mr. Shaw contrasted the position of the ordinary doctor and that of the medical officer of health, with his independent salary, and his position irrevocable by the local authorities. The medical officer of health was in an ideal position—the socialist position—the position in which socialism wanted to place all doctors.

A doctor at the present time was expected to do everything connected with his profession. That did not apply to the other professions. The judge sentenced a man to be hanged, but he was not expected to be the hangman. If he were the doctor he would be expected to act as hangman. There were men of extraordinary dexterity as operators whose whole time should be reserved for the most difficult cases, but instead one found those men poulticing whitlows and doing trumpery dressings that should be done by the nurse. They were found prescribing for ladies who had the same reason for asking for tonics as the charwoman had for asking for gin. In order to get the maximum of hygienic influence and the greatest economy in using the skill of the profession, it was necessary to get medical men organized, so that different grades did different work, and that the mere routine should not be left to the best men to do. Such organization was altogether impossible while private practice was the rule. It could be done only if the profession was organized publicly by the state. A private practitioner could not get ahead of the prejudices of his patient, and one of the things from which the doctor ought to be released was that abject dependence on his patient. Public opinion would be the final arbiter all along, but it was important to get every doctor in favor of educating the public scientifically, whereas now the doctor had the very greatest interest in preventing the patient from knowing anything at all. The medical profession must really be socialized, for the reason that medical men were finding themselves more and more driven to claim powers over the liberty of the ordinary man which could not possibly be entrusted to any private body whatever. If these things were going to be done and if scientific opinion was going to compel people on such a scale, then there must be democratic control. It would be intolerable tyranny unless it were controlled by the people. They were coming more and more to the point of giving the doctor the power of saying what was to be done with the child and denying that power to the parent. It was a curious step and one that would be fought energetically. It was impossible to leave the body in the hands of a private practitioner.

"You must make up your minds," concluded Mr. Shaw, "that the inevitable result is the socialization of the medical profession. As to what will happen when you have the doctor in the responsible, dignified and independent position of a public servant, instead of a private tradesman—as to what will happen to the surviving private practitioner I do not know. If a doctor finds himself in the position of depending on the caprice and ignorance of patients he will always, under socialism, be able to get an independent position in the public service, and if he elects to continue in private practice, he will not be compelled to make the humiliating concessions and the treacheries to science that he has now to do. Having the alternative of public service, he will be in as independent a position as if he were a public servant, and, on the other hand, the patient will always have the choice of getting public attendance; and so he, having the alternative, will be as well off with the private doctor as he will be with the public doctor."

Treatment of Nephritis with Tincture of Cantharides.—Lancereaux of Paris has been using this drug since 1892 in a number of cases of nephritis characterized by irritation of the epithelium of the uriniferous tubules with almost complete anuria. The anuria being the result of obstruction of the tubules by the swollen and degenerated epithelium, it seems logical to combat it by a drug which acts directly on this epithelium. Tincture of cantharides has a destructive action on the epithelium in large doses, but in small amounts merely modifies it in the desired direction. In one of the typical cases described in his communication read before the Academy of Medicine lately a child of 8 with scarlatinal nephritis, relative anuria with 2.5 per cent. albumin and much sediment consisting of blood corpuscles and epithelial tube casts, with menacing uremia and great depression, was restored to health by ten drops of tincture of cantharides given in syrup in the course of five days. The urine increased from 200 to 600 gm. within twenty-four hours after the first dose of a single drop of the tincture. He remarked that the effect of this single drop shows that it does not take much to save a life, for there was not a shadow of doubt as to the impending peril in this case. The practitioner may well meditate on this, he added, never forgetting that a medicine given at the right time and in the right dosage may be followed by almost miraculous results. In three other cases in young men the symptoms of epithelial nephritis developed after excess in river bathing, etc. After failure of the ordinary measures, Lancereaux gave five drops of the tincture, increasing to twelve drops in the course of a week and the output of urine rapidly returned to normal. He gives the tincture in a mucilaginous vehicle and always uses a freshly made preparation for each case as an old tincture soon loses its properties. In differentiating the type requiring this treatment, the tint and density of the urine, the presence of epithelial tube casts and cells are important diagnostic aids besides the tendency to anuria. They reveal the primarily epithelial nature of the disturbances which justifies this treatment with tincture of cantharides. Nephritis affecting especially the arteries and connective tissue is not benefited by it, as he has demonstrated in a number of cases. In these cases diuretics do wonders, supplemented by a drug to act on the connective and vascular tissue, such as potassium iodid.

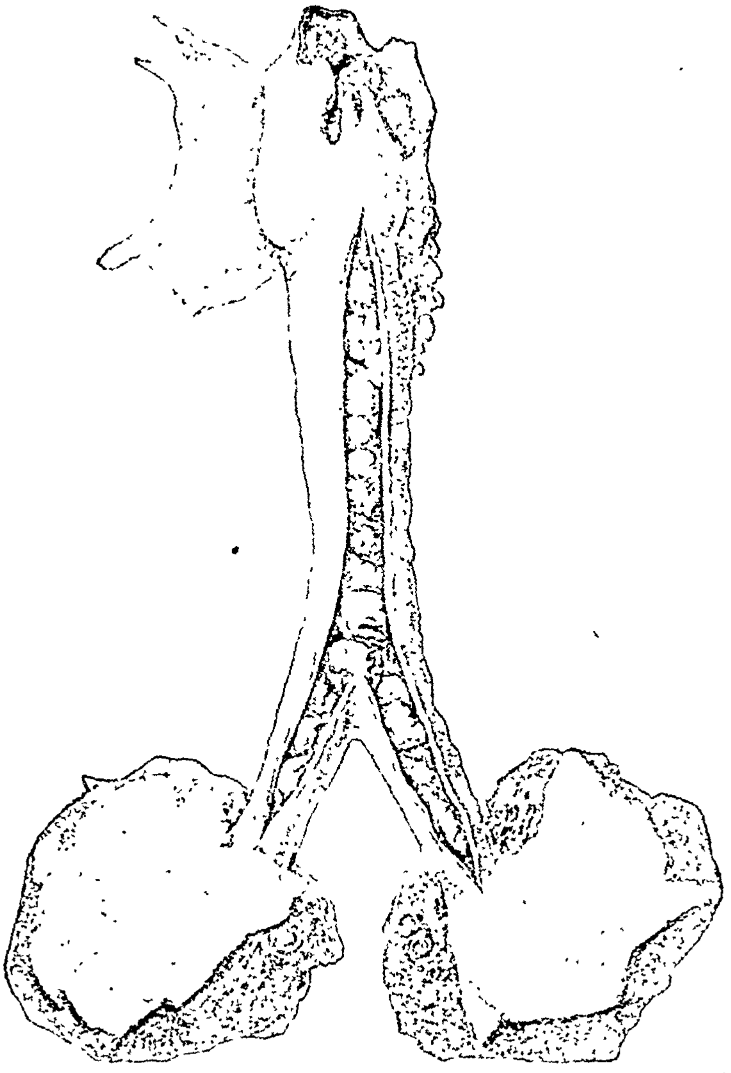
Factors Which Determine Growth and Activity of the Mammary Gland.—C. Foa (*Arch. di fisiol.*, v, 520) gives the results of many experiments undertaken to determine the factors which influence the growth and activity of the mammary gland. Subcutaneous or intraperitoneal injections of extracts of calf embryos into adult female dogs gave negative results if the extract was first heated to 110 C. Similar results were obtained on injection of heated extracts of embryonic thymus and thyroid glands. Unheated extracts gave positive results. A watery extract of calf embryos injected daily for twenty days into a dog (non-lactating) produced perceptible enlargement of the mammary glands after fifteen days. After thirty-five days a fluid was squeezed out of the nipple which microscopically looked like milk, and which reduced Fehling's solution. Injection of embryonic extracts into a lactating dog produced no change in the mammary secretion. Transplantation of mammary glands gave negative results. Transfusion experiments were negative. The blood of a lactating goat produced no change in the mammary gland of a non-lactating goat, and *vice versa* no change in the secretion of the lactating gland. The change of a resting gland to the lactating stage is due to the influence of a hormone secreted by the embryo. This hormone is not specific for the individual animal or to a given species. It is not clear whether extracts of embryos have an influence on the mammary glands of pregnant animals. A mammary gland which has greatly developed under the influence of the embryonic hormone is capable of secreting milk.

Solid Ovarian Teratomas.—Sjöval, in *Hygica Festband*, published by Svenska Läkaresällskapet in celebration of the centennial of its existence, points out that the term ovarian teratoma is a collective one including tumors of different histologic types. He regards the so-called secondary malignant degeneration as without basis in the structure of the tumors. Solid ovarian teratomas may be divided into two classes—malignant and non-malignant. In the first class the malignancy may be that of sarcoma, neuroepithelioma or ordinary carcinoma. This group gives the same unfavorable prognosis as ordinary malignant tumors. The second group falls into two sub-groups; (a) the tissues all tending to maturity; (b) all or some of the tissues persisting at an early embryonal stage..

The Coagulation Time of the Blood of Man.—T. Addis (*Quart. Jour. Exper. Physiol.*, 1908, I, 305) describes a new method of estimating the coagulation time. This involves rather elaborate apparatus, devised by Addis, to meet the "four conditions which must be fulfilled by any method which is to yield results which can be relied on:" (a) A uniform method of obtaining the blood; (b) constant temperature during an experiment; (c) the same amount of contact with foreign bodies; (d) a clear and definite end point of coagulation. All previous methods are discussed and pronounced unreliable. It is found that temperature has a great effect on the time of coagulation. The variation in time is most marked with the lower temperatures. Thus from 3 C. to 7 C., there is a diminution of time of more than 30 minutes (from 63 minutes, 20 seconds to 32 minutes, 45 seconds). "At about the normal temperature of the body the coagulation time is shortest, 1 minute, 25 seconds, becoming gradually longer at temperatures above 40 C. and below 36 C." In over 300 observations there was an absence of the supposed diurnal variation in the coagulation time of the blood. "For twenty days the coagulation time of my own blood and that of certain other persons was taken every hour or two, and in no one of the charts prepared from these observations do any variations occur which are outside the limit of experimental error." Addis also concludes that calcium and citric acid, when given by the mouth, have no influence on the coagulation time.

Prevention of Anesthesia Asphyxia and Postoperative Pneumonia.—The accompanying illustration, reproduced from the *Lyon Chirurgical*, March, 1909, page 573, shows the advisability of emptying the stomach as a routine measure before any operation on this organ. The case was one of stenosis of the pylorus with much vomiting and almost incessant hiccough. The usual preliminary lavage of the stomach was omitted on account of the incessant vomiting and the possible shock from the lavage and for the additional reason that it is difficult to prevent fluid from the lavage finding its way into the air passages. The patient was tranquil under a small amount of the Billroth mixture, but vomited as soon as the surgeon commenced the gastroenterostomy. A few moments later threatening asphyxia required artificial respiration, under which the operation was concluded, but recurring asphyxia proved fatal. The larynx and trachea were found plugged with grape skins and seeds. Since this experience, Gouilloud, who reported the case at a meeting of the Lyons *Société de Chirurgie*, makes a practice of lavage of the stomach the day before the operation, as he believes that stenosis of the pylorus is peculiarly liable to entail such accidents, although vomiting in the course of the anesthesia at any operation may have similar results. Vomiting occurs more readily when the anesthesia is not deep enough to abolish the reflexes.

It would have been better in the case reported, he says, to have used more of the anesthetic or none at all. Latarjet reported a case in 1905 in which the patient was suffocating from aspiration of clots during resection of the jaw, and he aspirated out the clots through a rubber tube with a hydrocele syringe. Gouilloud suggests the possibility of preventing such accidents during operations by applying a clamp to the cardia, shutting it off from the stomach proper. In two cases recently he used a Doyen stomach forceps and found that the desired purpose was thus attained without the slightest inconvenience. The measure may be found useful in cases contraindicating lavage for any reason or in which it has been omitted. He adds that this clamping of the cardia may aid in reducing the number of cases of postoperative pneumonia—the more extensive his experience the more he is convinced that these postoperative pneumonias are in reality due to matters finding their way from the esophagus into the air passages—"deglutition pneumonias."



Trachea and bronchi filled with grape skins which were aspirated after vomiting during anesthesia and which caused fatal asphyxia.

Marriages

William Henry Luedde, M.D., to Miss Nettie Belle Shryock, both of St. Louis, Mo., March 24.

Adolph B. Smith, M.D., Woodstock, Ill., to Miss Olive Branche Alexander of Chicago, March 10.

William J. Richardson, M.D., Greensboro, N. C., to Miss Annie Lewis Faulkner of Danville, Va., March 17.

Harry Fletcher White, M.D., Wachapreague, Va., to Miss Sarah Elizabeth Cottrell, at Richmond, Va., March 24.

William B. Carr, M.D., Washington, D. C., to Miss Eleanor McGill of Jersey City, N. J., in Washington, March 19.

John Frankland Rowland, M.D., Hot Springs, Ark., to Miss Lilian Driver of Osceola, Ark., March 25.

Deaths

Henry Tucker Percy, M.D. University of Virginia, Charlottesville, 1872; a member of the American Medical Association; medical inspector U. S. Navy; who entered the naval service in 1873, and during the Spanish-American war was surgeon of the U. S. *Charleston*, and later on duty on the *Olympia*, and at the Norfolk and Washington Navy Yards; in command of the U. S. Naval Hospital at Yokahama, Japan, in 1905 and 1906; died at the Naval Medical School Hospital, Washington, March 31, from uremia, aged 59.

Letchworth Smith, M.D. College of Physicians and Surgeons, New York City, 1898; who served in Porto Rico during the Spanish-American War; director of laboratories at the Hospital College of Medicine, and later at the University of Louisville; chief inspector of milk in the Louisville Health Department; organizer of the Babies' Milk Commission; and the Tenement House Commission; died in his home April 7, from organic heart disease, aged 39.

Charles Joseph Adrien Le Claire, M.D. University of the Victoria College, Coburg, Ont., 1887; a member of the Connecticut State Medical Society; once president of the Windham County Medical Society and of the French National Congress of Connecticut; a member of the local board of U. S. Pension Examining Surgeons, and of the school board of Killingly; died at his home in Danielson, April 1, aged 45.

Charles Wright Huff, M.D. University of Pennsylvania, Philadelphia, 1874; a member of the Michigan State Medical Society, and the Kalamazoo Academy of Medicine; United States pension examining surgeon for the district; for several years president of the board of trustees of Gobleville; died March 31, at his home, aged 59.

John Hudson Thompson, M.D. College of Physicians and Surgeons, New York City, 1852; of Goshen, N. Y.; surgeon of the One Hundred and Twenty-Fourth New York Volunteer Infantry, and later brigade and division surgeon, during the Civil War; died in Middletown, N. Y., April 3, from senile debility, aged 82.

Robert Crane, M.D. Yale University, New Haven, 1843; town clerk and postmaster of Middlebury, Conn., for several years, and in 1857 a member of the house of representatives; and later assistant assessor of internal revenue; died suddenly at his home in Waterbury, Conn., March 31, from senile debility, aged 87.

John Jacob Eargle, M.D. University of Nashville, Tenn., 1888; a member of the American Medical Association; and formerly health officer of Comanche county, Texas; died at his home in Proctor, March 16, 1908, from cerebral hemorrhage, aged 51.

David E. Bruton, M.D. College of Physicians and Surgeons, San Francisco, 1902; of Austin, Nevada; died in his office, Nov. 20, 1908, from the effects of a gunshot wound, believed to have been self-inflicted with suicidal intent, while despondent, aged 35.

Albert Groves Ellinwood, M.D. University of Buffalo (N. Y.), 1848; of Attica, N. Y.; a member of the American Medical Association; local surgeon of the Erie Railroad; died in a hospital in Buffalo, March 26, after a surgical operation, aged 84.

Robert Eleazer Ensign, M.D. (N. Y.) Medical College, 1857; a member of the Connecticut State Medical Society and a veteran of the Civil War; for 20 years medical examiner of Berlin, Conn.; died at his home, March 29, from heart disease, aged 75.

Milton LeRoy Somers, M.D. Medico-Chirurgical College, Philadelphia, 1897; a member af the Atlantic City (N. J.) Academy of Medicine and secretary and health officer of Atlantic City; died at his home, April 3, from tuberculosis, aged 38.

Jacob Theodore Simmons, M.D. Tulane University, New Orleans, 1883; a member of the American Medical Association; of Simmonsville, Miss.; died in the Hôtel Dieu, New Orleans, February 22 from disease of the heart and liver, aged 55.

J. Orpheus Jolley, M.D. Sioux City (Iowa) College of Medicine, 1904; of Dixon, Neb.; a member of the Nebraska State Medical Association; died in St. Vincent's Hospital, Sioux City, Iowa, April 1, from traumatic tetanus, aged 37.

Stephen M. Gonzalez, M.D. Kentucky School of Medicine, Louisville, 1886; assistant surgeon in the Army during the

Spanish-American War; died in a hospital in Pensacola. Fla., March 27, from pneumonia, aged about 45.

Perry David Goldsmith, M.D. University of the Victoria College. Coburg, Ont., 1868; L.R.C.P., L.S.A., M.R.C.P., Eng., 1887; M.R.C.S., London. 1892; of Toronto; died in Belleville, Ont., April 5, from heart disease, aged 64.

Willard Southard Whitney, M.D. Homeopathic Hospital College, Cleveland, 1868; a pioneer practitioner of Big Rapids, Mich.; died at the home of his daughter in Pontiac, April 2, from senile debility, aged 90.

Joseph Clifford Moore, M.D. New York Homeopathic Medical College, 1866; a member of the New Hampshire Senate in 1880; died at his home in Laconia, N. H., March 19, from cerebral hemorrhage, aged 64.

James Valentine Pope, M.D. St. Louis Medical College; assistant surgeon in the army during the Civil War; died at his home in Forest Grove, Ore., Aug. 2, 1908, from chronic disease of the intestine, aged 72.

J. Edward Moyler, M.D. Medical College of Virginia, Richmond, 1864; assistant surgeon in the Confederate Army and Navy during the Civil War; died at his home in Petersburg, Va., March 27, aged 67.

Arthur W. G. Farrar, M.D. Leonard School of Medicine, Raleigh, N. C., 1893; of Richmond. Va.; died in the Central State Hospital, Petersburg, from valvular heart disease, March 3, aged 39.

Joshua T. Wesley, M.D. University of Louisville (Ky.), 1865; a member of the American Medical Association; died at his home in Middleburg, Ky., March 24, from pneumonia, aged 69.

Thomas S. Foley, M.D. Hospital College of Medicine, Louisville, 1884; of Pineville, Ky.; a member of the American Medical Association; died in Louisville, March 25, from meningitis, aged 47.

William Worrick Holmes, M.D. Barnes Medical College, St. Louis, 1903; of Harrisburg, Ark.; died recently in St. John Hospital, St. Louis, from organic heart disease, aged 47.

Charles C. Hummel, M.D. College of Physicians and Surgeons, Chicago, 1899; of Ransom, Ill.; died in the Oakes Home, Denver, March 15, from pulmonary tuberculosis, aged 39.

Lester H. Luse (license, Ohio, 1896); for twenty-five years secretary of the Lake County (Ohio) Pioneer Society; died at his home in Willoughby, Ohio, April 1, aged 71.

Alexander Rixa, M.D. Rush Medical College, Chicago, 1884; of New York City; died in Lebanon Hospital, New York City, March 16, from carcinoma of the rectum, aged 65.

Newton Clark Stevens, M.D. University of Maryland, Baltimore, 1875; a member of the Louisiana State Medical Society; died at his home in Ama, January 28, aged 62.

Ammi Ruhamah Hahn, M.D. Harvard Medical College, Boston, 1869; a member of the Massachusetts Medical Society; died at his home in Boston, March 30, aged 67.

Joseph W. Rhoades, M.D. Medical College of Georgia, Augusta, 1872; died at his home in Jewell's, near Sparta, Ga., March 26, from heart disease, aged about 60.

J. Harvey Guthrie, M.D. Starling Medical College, Columbus, 1898; formerly of Farmington, N. M.; died in Urichsville, Ohio. March 14, from tuberculosis, aged 37.

Roy S. Blackburn, M.D. Keokuk (Iowa) Medical College, 1898; a member of the Illinois State Medical Society; died at his home in Low Point, March 28, aged 36.

C. L. Clawson, M.D. Medical College of the State of South Carolina, Charleston, 1843; died at his home in Richburg, S. C., March 27, from septicemia, aged 89.

Ernest F. G. Horst, M.D. New York University, New York City, 1876; died at his home in St. Paul, Minn., March 26, from an overdose of chloroform. aged 55.

Charles W. Harwood, M.D. Jefferson Medical College, Philadelphia, 1883; died at his home in Worcester, Mass., March 26, from disease of the liver, aged 52.

Orrin Hart Boynton, M.D. Dartmouth Medical School, Hanover, N. H., 1861; of Lisbon, N. H.; died at the home of his son in that city, March 27, aged 74.

Samuel Friedlander, M.D. Minnesota Hospital Medical College, Minneapolis, 1885; died at his home in Minneapolis, Feb. 21, from arteriosclerosis, aged 68.

Edwin Charles French, M.D. Hospital College of Medicine, Louisville, 1899; died at his home in El Paso, Texas, March 23, from typhoid fever, aged 38.

James H. Wilson, M.D. Jefferson Medical College, Philadelphia, 1885; of Hazelton, Pa.; died in a hospital in Pittsburg, February 4, from pneumonia.

George W. Bronson, M.D. Rush Medical College, Chicago, 1881; died at his home in Streator, Ill., March 31, from cerebral hemorrhage, aged 55.

Charles B. Jared, M.D. Hahnemann Medical College, Chicago, 1905; a lecturer in his alma mater; died at his home in Chicago, April 5, aged 52.

Luigi Galvani Doane, M.D. University of Michigan, Ann Arbor, 1871; died at his home in New York City, April 4, from heart disease, aged 59.

David W. Moore, M.D. College of Physicians and Surgeons, New York City, 1855; died at his home in Waupun, Wis., January 23, aged 83.

Daniel Wixon Winters, M.D. Jefferson Medical College, Philadelphia, 1873; died at his home in New Danville, Pa., February 13, aged 61.

William Clay Frew, M.D. Long Island College Hospital, Brooklyn, N. Y., 1869; died at his home in Coshocton, Ohio, April 2, aged 64.

John H. Brooke, M.D. Starling Medical College, Columbus, Ohio, 1864; died at his home in Newark, Ohio, April 2, from nephritis, aged 78.

Mary Eudora Farnham Whitney, M.D. Boston University School of Medicine, 1893; died at her home in Medford, Mass., March 30.

Allen P. McCullough, M.D. University of Nashville, Tenn., 1857; of Milton, Tenn.; died at his home, March 13, aged 73.

Allen A. Webster (license, Neb., 1891); died at his home in Mills, Neb., recently, from general paresis, aged 75.

Allen Burdick, M.D. Harvard Medical School, Boston, 1882; died at his home in Boston, March 29, aged 52.

Medical Education and State Boards of Registration

COMING EXAMINATIONS

Florida: Tallahassee, May 19-20. Sec., Dr. J. D. Fernandez. Jacksonville.

Georgia: Regular: Capitol Bldg., Atlanta, April 30-May 1. Sec., Dr. E. R. Anthony, Griffin. Homeopathic: Atlanta, May 1. Sec., Dr. R. E. Hinman, 153 Whitehall St.

Louisiana: Regular: New Orleans, May 20-21. Sec., Dr. Felix A. Larue, 211 Camp St. Homeopathic: 919 St. Charles St., New Orleans, May 3. Sec., Dr. Gayle Aiken, 1102 St. Charles Ave.

Massachusetts: State House, Boston, May 11-13. Sec., Dr. Edwin B. Harvey, Room 159, State House.

Mississippi: State Capitol, Jackson, May 11-12. Sec., Dr. S. H. McLean.

Missouri: Kansas City, May 17-19. Sec., Dr. J. A. B. Adcock, Warrensburg.

Nebraska: State Capitol, Lincoln, May 25-27. Secretary, Dr. E. J. C. Sward, Oakland.

Nevada: Carson City, May 3. Sec., Dr. S. L. Lee.

New York: Albany, May 18-21. Dr. Charles F. Wheelock, Albany.

University of Missouri Adopts Higher Requirements

The University of Missouri will increase the requirements for admission beginning Sept. 1, 1910, to two years of liberal arts' college work, including specified courses in physics, chemistry, zoology and modern languages. One year of such work has been required since 1906.

Leland Stanford University's New Medical Department

The announcement of the Department of Medicine of the Leland Stanford Junior University, formed by the union of Cooper Medical College with that university, has just been received. It is stated that three years of preliminary college work, including one year each of physics, chemistry and physiology or biology with laboratory work and a reading knowledge of French or German will be required for admission. The work of the first three semesters of the medical course is to be given in Palo Alto and the work of the last five semesters in San Francisco.

Medical Education and Nostrums, Sixth Letter

The following is the sixth of a series of letters issued jointly by the Council on Medical Education and the Committee on Medical Teaching of the Council on Pharmacy and Chemistry:

To Medical Teachers:—This letter contains a few suggestions for the departments of materia medica and pharmacy. These departments, and those of pharmacology and therapeutics, are the most directly interested in the conditions which we have described. On them has been placed the entire blame for these evils. This charge is certainly exaggerated; but they should do their utmost to deprive it of any basis.

Materia Medica.—The classical course in materia medica is the very antithesis of the nostrum business. For this very reason, perhaps, there is some danger that the forest may be hidden by the trees. Every occasion should be taken to impress on the student the general superiority of the standard, established drugs (see O. T. Osborne: "The Sufficiency of Official Drugs," The Journal, Oct. 31, 1908, p. 1477); the fact that these have been studied and tested by a quantity of clinical experience which vastly exceeds that available for any of the novelties; the fact that they have already undergone the expurgation of the survival of the fittest, while the new remedies are continually being discarded as useless. The history of digitalis, or the classical example of venesection, may be cited as object lessons in overconfidence in such superficial observations as are now used to bolster up the status of the nostrums.

The ordinary course of materia medica often fails to place sufficient emphasis on these points of superiority, or on the fact that it is rarely necessary to use other than official remedies. It should insist that the prescriber, in using unofficial remedies must take on himself the responsibility of deciding whether these have been thoroughly tested under proper experimental conditions, by independent investigators, and not merely by the paid agents of the manufacturers.

To render this teaching effective, however, the course in materia medica should discard those official substances which experience has shown to be superfluous.

Pharmacy.—This department can teach to the student the scientific superiority of simple pharmaceutical preparations over nondescript mixtures. By the demonstrations of official products, and by a little individual practical work on the part of the student, it can impress the fact that pharmacy is not a mystery controlled exclusively by the nostrum houses. By a little practice in dispensing, it can teach to the student the feasibility of extemporaneous prescribing for the individual patient. In the same way it can help to remove the weak dread of incompatibilities.

Medical Education and Nostrums, Seventh Letter

This is the seventh of a series of letters issued jointly by the Council on Medical Education and the Committee on Medical Teaching of the Council on Pharmacy and Chemistry.

To Medical Teachers:—This letter contains a few suggestions for the departments of pharmacology and therapeutics.

Pharmacology.—This department should teach the student how the actions of medicines must be investigated. If it is successful in creating a taste for high standards in experimental work, it will have done its full share toward eradicating the nostrum evils. The latter, however, furnish excellent object lessons of how experimental work should *not* be done. The value of pharmacology can be greatly emphasized to the student by analyzing the claims of almost any proprietary mixture, or by incidentally comparing the evidence for any of the new products, in quality or quantity, with that of the official substance with which it competes. The claims for cactin or for isopral would furnish instructive examples. (Studies of the actions (?) of cactin may be found in The Journal, Sept. 21, 1907, p. 1023, and March 21, 1908, p. 956.)

Toxicology.—This department can draw some of its best illustrations of acute and chronic poisoning by morphin, heroin, cocain, chloral, atropin, arsenic, acetanilid, phenols, and the synthetics, etc., from the nostrum literature, and thus emphasize the danger of prescribing little-known mixtures and drugs; the danger of adding to the work of the asylums or of the coroner.

Therapeutics.—This department should be particularly careful to inculcate a sound conservatism, both by precept and example. The deceptive nature of superficial clinical observations, the danger of confounding *post hoc* and *propter hoc*, the temptation of making far-reaching deductions from slender data—these should all be emphasized as an incidental part of the ordinary teaching. Here again examples from the nostrum literature furnish the most striking object lessons.

It is also necessary to combat the false statement that extraordinary virtues, are developed in ordinary remedial agents by mysterious methods of combination, or by the addition of inactive substances. This might seem superfluous; but constant reiteration gradually gains credence even for the greatest absurdities. Many examples of this deception might be given, but Anasarcin and Anedemin (The Journal, May 4 and 11, 1907, pp. 1535 and 1641) are among the most flagrant.

This department should also emphasize the foolishness of discarding through the employment of secret or semi-secret mixtures the therapeutic data, positive and negative, so painstakingly accumulated by preceding generations of physicians, and thus the foolishness of the argument that the physician is not concerned with the composition of a remedy, but only with its actions.

The practicing therapeutist also has superior facilities for observing numerous cases of the abuse of "ethical" proprietary remedies by the laity. The incidental relation of a few personal experiences of this sort can not fail to be profitable to his students.

Prescription-Writing.—No single factor has played so powerfully into the hands of the nostrum-maker as insufficient drill in prescription-writing. "Drill" is what is needed. The principles and practice of prescription-writing can only be acquired effectively by frequent practice. This should teach not only the minutiæ of the technic of this important art, but also the individual study of the conditions of the case: the special adaptability of the different preparations of the official materia medica, the methods of administration, the proper vehicles and flavors, and the avoidance of incompatibilities. The manufacturers of pharmaceutical "specialties" say that their richest harvest is gathered from those physicians whose education in this department has been neglected.

Alabama January Report

Dr. W. H. Sanders, chairman of the State Board of Medical Examiners of Alabama, reports the written examination held at Montgomery, Jan. 7-10, 1909. The number of subjects examined in was 10; total number of questions asked, 66; percentage required to pass, 75. The total number of candidates examined was 27, of whom 7 passed, including 2 non-graduates, and 20 failed, including 13 non-graduates. The following colleges were represented:

College	Year Grad.	Per Cent.
PASSED		
Medical College of Alabama	(1890)	78.
University of Michigan	(1907)	75.
University and Bellevue Hospital Medical College	(1905)	84.
University of Pennsylvania	(1907)	76.
Vanderbilt University	(1903)	84.
FAILED		
National Medical University, Chicago	(1907)	52.1
Boston University	(1900)	65.8
Leonard School of Medicine	(1905)	52.3
Meharry Medical College	(1907)	41.1
University of the South	(1907)	39.7, 56.8
University of Nashville	(1907)	38.1

District of Columbia January Report

Dr. George C. Ober, sec[illegible]etary of the Board of Medical Supervisors of the District of Columbia, reports the written examination held at Washington, January 12-15, 1909. The number of subjects examined in was 8; total number of questions asked, 80; percentage required to pass, 75. The total number of candidates examined was 15, of whom 7 passed and 8 failed. The following colleges were [illegible]:

College	
PASSED	
George Washington University	(1902) 78.2; (1[illegible]
Georgetown University	(1[illegible]
Howard University	(1[illegible]
University of Michigan	[illegible]
University of Toronto, Canada	[illegible]
FAILED	
George Washington University, (1907) 66.8; (1907) 73.7.	
Howard University	[illegible]

* Completed three papers only.

Connecticut March Report

Dr. Charles A. Tuttle, secretary of the Connecticut Medical Examining Board, reports the written examination held at New Haven, March 9-10, 1909. The number of subjects examined in was 12; total number of questions asked, 70; percentage required to pass, 75. The total number of candidates examined was 13, of whom 8 passed and 5 failed. The following colleges were represented:

College	Year Grad.	Per Cent.
PASSED		
Yale Medical School	(1906)	80.7
Tufts College Medical School	(1902)	78.4
Cornell University Medical College	(1899)	87.2
Long Island College Hospital	(1908)	79.2
University and Bellevue Hospital Medical College	(1907)	75.8
Columbia University College of Physicians and Surgeons	(1906)	78.1
University of Vermont	(1907)	76.8
University of Toronto, Canada	(1904)	84.3
FAILED		
Georgetown University	(1908)	74.3
Maryland Medical College	(1908)	71.6
Baltimore Medical College	(1908)	74.1
Western Pennsylvania Medical College	(1907)	64.4
University of Naples, Italy	(1905)	72.6

Medicolegal

Habitual Drunkard's Case Treated Like One of Permanent Personal Injury

The Supreme Court of Nebraska holds, in Acken vs. Tinglehoff and others, that in an action by a wife against licensed liquor dealers to recover damages for non-support by her husband, who was made an habitual drunkard either wholly or partially through the defendants' traffic, it is competent to introduce the Carlisle Tables of Mortality as evidence of the husband's expectancy of life when a sufficient foundation therefor is laid by evidence tending to show that the husband's habitual inebriety has permanently impaired his earning capacity. It is said in the opinion in the case that evidence of expectancy is usually introduced in damage cases for personal injuries or death. The case under consideration is not, strictly speaking, a personal injury case. It is permitted by the statute and did not exist at common law. It is, however, very similar to a personal injury case in so far at least as the amount of recovery is measured by the same rules. Every reason for permitting such evidence of expectancy in personal injury cases exists in this case. While it is true that drunkards may reform, yet the probability of any particular one doing so is a matter for argument, and not for presumption. It is improbable that any person could have special knowledge which would permit him to testify to a certainty as to whether or not an habitual drunkard would reform or be restored to health, regain his natural faculties, and perform the duty of supporting his family. Such testimony would not strengthen the plaintiff's case. It is for the jury to determine from the evidence of the husband's habits and condition whether his failure to support the family will be permanent.

Incompetent Evidence to Discredit Physician as Witness—Damages for Injury

The Court of Civil Appeals of Texas says, in Missouri, Kansas & Texas Railway Co. of Texas vs. Bailey, a personal injury case brought by the latter party, that a physician testified in behalf of the plaintiff that he had treated him since soon after he was injured, that he had made several examinations of him, and that his opinion was that the plaintiff's left limb was permanently paralyzed. On cross-examination the witness testified that he remembered a man named Lynch, and that he had stated as a witness on the trial of a suit brought by the said Lynch against this same company that in his opinion the said Lynch was paralyzed and would never be able to walk again. The company then offered to prove by another witness that he saw Lynch about three weeks before the trial of the present case, and that he was able to walk without the assistance of any crutch and practically as well as he ever could. This testimony was objected to, and it is held that there was no error in excluding it.

It was not competent, the court thinks, to discredit the physician, who had testified as an expert, in the manner attempted. It is a well-settled general rule that all questions tending to raise collateral issues and all evidence offered in support of such issues ought to be rejected. It is said that one of the reasons why a collateral question should not be entered in the trial of a case is that it would add to the trial so much consumption of time and confusion of issues as to be intolerable. The admission of the testimony excluded in this case would have introduced into the case a collateral matter, the investigation of which would have unduly prolonged, it would seem, the trial and doubtless resulted in a confusion of real issues.

Again, while particular instances of a lack of qualification, wherever a special qualification is required for testimony to a certain fact may be brought out by questions to the witness himself, yet particular instances of mistake or error indicating a lack of expertness are, ordinarily, not provable by extrinsic evidence. This seems to be specially true of questions relating to prior instances out of court. Putting it in the strongest light for the company, it would seem that proof of such particular instances by other witnesses is only admissible at the discretion of the court when it deems it useful.

Nor does the court think that a verdict in the plaintiff's favor for $20,000 damages was excessive, the evidence showing that he was 35 years of age at the time he was injured; that he had been an industrious and capable man who was earning $50 a month at the time of his injury; that he was knocked unconscious and had been confined to his bed, not able to walk a step, from the date of his injury up to the date of the trial, a period of about nine months; that he was paralyzed and had suffered continuously; that his condition was permanent; and that he would probably continue so to suffer.

Construction of Portions of Wisconsin Medical Practice Act and of Terms "Physician" and "Reputable"

The Supreme Court of Wisconsin says, in the case of State vs. Schmidt, that chapter 264 of the Wisconsin Laws of 1897 provided for a state board of medical examiners and required all beginning to practice medicine or surgery in Wisconsin after July 1, 1897, to first procure a certificate of qualification from such board. It did not deal in any respect with members of the profession in actual practice in Wisconsin, on such date.

Chapter 87 of the Laws of 1899 enlarged the scope of the board's jurisdiction by making the privilege of every person who was a resident practicing physician in Wisconsin July 1, 1897, to continue in such practice contingent on his obtaining a certificate of qualification from the board within a prescribed time and becoming duly registered with the board. The law prescribed, as a condition of granting the certificate, that the application should be made therefor and the applicant submit in support thereof his "diploma or other credential or evidence of qualification" and be a "reputable resident physician or surgeon of good moral character who was on the first day of July, 1897, in the actual practice of medicine or surgery in the state of Wisconsin." In mandatory language the board was required, on such application being made by a person competent, as provided in the law, to make it, and supported by the evidence of qualifications prescribed—to grant the registration and certificate.

Chapter 422 of the Laws of 1905 gave the circuit courts of Wisconsin jurisdiction to annul any certificate obtained as aforesaid, in case of the issuance thereof resulting from error of the board or fraud or perjury.

From the foregoing it will be seen that the board of medical examiners in acting on the defendant's application, was required to decide, by the exercise of quasi (semi) judicial authority, first, whether the defendant was, July 1, 1897, a resident physician or surgeon and actually engaged in practice in Wisconsin; second, whether he was, at the time of the application, a reputable physician or surgeon; third, whether he was a man of good moral character.

The board was left free to prescribe its own rules of procedure, governed only by the requirement that the applicant should submit the evidence of his qualification. That, in the broadest sense the language can be reasonably viewed, related to all of the three matters of fact mentioned. It might possibly be held more restrictive, but for the purposes of this case the broader view is taken to be the correct one.

Manifestly, the Legislature conceived that it was dealing with the entire class of persons known as physicians, in the broadest sense of the term, not in any narrow sense, which would favor those claiming, and perhaps entitled to superior distinction. The purpose was very far from that of creating a monopoly in favor of special schools of medicine. The term was evidently used in its proper sense, that of including any person of whatever school, and whether belonging to any known school, engaged in good faith, in treating human ills by any remedy, or remedies, however simple, so as to be known among the people as a physician.

What has been said as to the legislative meaning is so manifest, in the court's judgment, from the very fact alone that it was dealing with an existing condition which it did not intend to disturb except to the extent of weeding out disreputable and immoral characters. But that is placed beyond all reasonable doubt by the fact that the law of 1897, to which the law of 1899 referred, expressly defined the term, making it include every person "who shall for a fee, prescribe drugs or other medical or surgical treatment for the cure or relief of any wound, fracture, bodily injury, infirmity or disease."

The court must also appreciate that the act of 1905 did not contemplate a new trial of the questions presented to the board. Aside from whether it was imposed on by fraud or perjury, the scope of the trial was limited, by the act, to the question of whether the board committed error. Just what the legislature intended by the use, unexplained, of the word "error" may admit of some doubt, but the court is constrained to believe that the term was used in the sense it is ordinarily understood as applied to trials in courts before juries. That is, while, aside from jurisdictional errors in the limited sense of such as would render the decision void, it is confined to such absence of evidence in support of the board's decision that, in no reasonable view thereof, could its decision be justified, or prejudicial refusals to admit or exclude evidence, or other prejudicial misapprehensions of law; error which might properly be denominated "jurisdictional," as regards trials before quasi judicial bodies—errors which, in the general sense are purely judicial, in the sense that a decision is binding on all concerned, till set aside by some proper proceedings for that purpose.

The board was not in error in its construction of the term "physician," as it was evident that it did not understand that term, as applied to persons practicing the healing art July 1, 1897, referred only to such as possessed that technical knowledge of the human system and knowledge of drugs and other remedies and how to administer them, commonly supposed to be possessed by members in good standing of the great schools of medicine.

Did the board commit error as to the meaning of the word "reputable?" Here was the state's bone of contention. The claim is not new, that a physician or surgeon, however learned in fact, is disreputable, unless he belongs to some incorporated medical society or holds a diploma from some reputable medical school. This court has said, and other courts have said, that the term "reputable" as used in the statute has no such legal and technical meaning as counsel claimed for it. Therefore, until the legislature shall have unmistakably used it in such sense, no such meaning can be given thereto by judicial construction.

The word "reputable" has a plain ordinary meaning having reference to general character for some honorable work. Whether one is reputable or not, means whether he is worthy of praise or not in the particular line under consideration. If one is regarded as honorable and praiseworthy as a member of the medical profession, of whatever school, or whether classed with any particular school, by reason of the character of his work and his conduct professionally, he satisfies the statutory essentials of reputability as to his particular line, though he may never have crossed the threshold of a medical college or been a member of any medical society.

Whether as a matter of fact, as an original matter, the defendant possessed the qualifications one would expect to characterize a physician or not, as before indicated, was not for the Circuit Court, nor is it for this court to decide. The board had full authority to inquire into the matter.

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

New York Medical Journal

April 3

1 *Theories and Problems of Heredity (continued). J. Wright, New York.
2 Exophthalmic Goiter. C. A. McWilliams, New York.
3 The Third Tonsil. H. Parrish, Philadelphia.
4 *Cesarean Section. W. L. Harris, Providence, R. I.
5 **Id.* B. Van Sweringen, Fort Wayne, Ind.
6 Nature and Treatment of Neurasthenia. S. T. Rucker, Memphis, Tenn.
7 Diagnosis of Diseases of the Kidney. R. H. Greene, New York.
8 Two Unusual Cases of Typhoid. F. W. White, Philadelphia.

1. Theories and Problems of Heredity.—In this, his third paper, Wright discusses the affiliation of cancer with the fundamental theories of heredity.

4. Cesarean Section.—Harris discusses the various measures for emptying the uterus when the pelvis is deformed. Craniotomy he dismisses unless the child is dead. Symphyseotomy and pubiotomy do not insure adequate room, are as difficult of performance as Cesarean section, convalescence is slower, and the mortality for mother and child is high. The induction of premature labor might solve the difficulty if we could be sure of the right time; but if brought about too soon, we imperil the infant's life; if we wait too long we have to face the original danger of a difficult labor. The secret of success in Cesarean section lies in operating at the opportune moment. Postponement until after the high forceps has proved useless, results in an exhausted patient and consequent impediment to success. The harm wrought by the forceps is beginning to be recognized. Harris gives the indications for Cesarean section as follows:

1. When the conjugate measurement of the pelvis is below 3½ inches.
2. When the presence of a pelvic, cervical, or vaginal tumor renders delivery impossible.
3. Central placenta prævia.
4. When, with a conjugate measurement below 3½ inches, the forceps has been applied and no advancement can be detected after ten minutes.
5. When a woman has had one stillborn child of moderate size following the application of forceps.
6. When a woman has lost two or three children from accidents during labor.
7. In cases of puerperal eclampsia at full term, Cesarean section is preferable to cervical dilatation followed by version or high forceps.
8. Several cases have been reported in which the complications following ventral fixation have made Cesarean section necessary.
9. The following pelvic deformities, dwarf pelvis, ankylosed pelvis, coxalgic pelvis, kyphotic and oblique pelvis, require the Cesarean operation.

He describes the technic. He has done the operation 21 times, 1 case including the delivery of twins, and 2 patients having been delivered twice each by Cesarean section, with the following results: All the mothers are living, and all the children but 3, 2 of whom died a few minutes after birth, and one a few days later. The 21 mothers had, previous to their operations, lost 39 children, and to-day there are in his state enjoying good health, 19 boys and girls varying in age from 3 months to 6 years, who, in his opinion, owe their existence to this operation. He insists that the antipathy to the Cesarean section must disappear.

8. Idem.—Van Sweringen reports three cases subjected to Cesarean section during the last ten months, respectively for the following reasons: (1) Adhesion of uterus to abdominal wall, consequent on appendicitis during pregnancy; (2) central placenta prævia; (3) contracted pelvis resembling male formation. In all cases mothers and babies are alive and well. He urges the more frequent employment of Cesarean section as a conservative measure for both mother and child. He discusses the indications given in the cases above mentioned, and says of adhesions between the uterus and abdominal wall following drainage after appendicular inflammation, that it is an increasingly common indication for this operation.

Medical Record, New York

April 3

9 *New Method of Recognizing Ulcers of the Upper Digestive Tract and of Localizing Them. M. Einhorn, New York.
10 *Postural Lung Dulness; Its Value in Diagnosis and Treatment. A. Abrams, San Francisco.
11 Anaphylaxis and Immunity. E. F. McCampbell, Columbus, O.
12 Diagnosis and Treatment of Internal Hemorrhage and of Pulmonary Hemorrhage as a Complication of Tuberculosis. T. F. Smith, Washington, D. C.
13 Renal Tuberculosis. E. Quick, Appleton, Wis.
14 *Is Gastrointestinal Autointoxication a Disease, or only a Symptom? O. L. Mulot, Brooklyn, N. Y.

9. **Ulcers of the Upper Digestive Tract.**—Einhorn describes two methods of localizing and obtaining information concerning ulcers of the stomach or upper duodenum. The first method consists of a duodenal bucket, in gelatin capsule, attached to a silk thread long enough to allow the bucket, when swallowed at night, to pass for a distance of 75 centimeters from the lips. The external end is fastened to the shirt. The apparatus is removed before food is taken in the morning, and in the presence of an ulcer or bleeding growth a blood stain will be found on the silk where it passes over the ulcer of the stomach or duodenum. The distance of the staining on the thread indicates the position and to some extent the size of the ulcer. Naturally, ulcers of the fundus and greater curvature can not be detected in this way. The other method consists of an India-rubber balloon, covered by a silk gauze bag somewhat stomach-shaped. These are attached to the end of a tube containing a stopcock and stylet. The balloon and gauze are wrapped round the end of the tube and passed into the stomach. The balloon is then inflated by means of a bulb connected with the free end of the tube, and the gauze bag thus comes into contact with the walls of the stomach and receives an impression from the surface of an ulcer similar to that found on a silk thread. Einhorn calls this apparatus the "gastric stamper." This latter method is more difficult of performance and can be done only in patients who are used to lavage and in whom that procedure is not contraindicated. The article is illustrated.

10. **Postural Lung Dulness.**—Abrams refers to the "atelectatic zones," which are circumscribed areas of pulmonary atelectasis dissociated with any demonstrable lesions, varying in size from that of a 25-cent piece to that of a dollar, or even larger, and disappearing after a deep inspiration or on application of the lung reflex test. These zones, even in normal conditions, often yield a dulness or flatness on percussion, and are frequently mistaken for lung consolidation. They bear a definite relation to the points of election and paths of distribution of the lesions in chronic pulmonary tuberculosis. Sometimes the lungs are hyper-resonant, presenting essentially the signs of emphysema consequent on a pulmonary neurosis termed by the author "acute lung dilatation." These two conditions will disappear on cocainization of the nasal mucosa. Lung dulness is influenced by posture. Abrams describes the changes in dulness brought about by different postures, and says that postural dulness as a pathologic phenomenon is often found. It may be distinguished from that of atelectasis by the fact that the latter is usually circumscribed and may be dispelled by a series of forced inspirations, by rubbing the skin over the area of dulness to provoke the lung reflex of dilatation, and by the cocain test. Postural dulness is usually diffused, and can not be dispelled by these means, but disappears by complete change of posture. Abrams regards postural dulness as dependent on the blood normally present in the blood vessels of the lungs, which is influenced by gravity. It is most pronounced in passive congestion of the lung and is noticed slightly in pulmonary tuberculosis. He discusses Grocco's sign. He considers postural treatment of the lungs justified.

14. **Gastrointestinal Autointoxication.**—Mulot discusses the idea that gastrointestinal autointoxication is due to the intestinal bacteria, and urges that in that case we should all have it. He thinks it likely to be due to deficient quantity or defective quality of the bile. The cause of liver insufficiency is at present unknown.

Boston Medical and Surgical Journal

April 1

15 *Recent Progress in Treatment of Various Conditions Called Rheumatism. R. B. Osgood, Boston.
16 *Infection with the *Bacillus Aërogenes Capsulatus*, Following Abortion. E. B. Young and L. J. Rhea, Boston.
17 Tuberculous Pericarditis. C. R. Metcalf, Tewksbury, Mass.
18 The Wassermann Reaction in Syphilis and Other Diseases. R. I. Lee and W. Whittemore, Boston.
19 *Modern Ideas on the Teaching of Therapeutics and Pharmacodynamics. M. V. Tyrode, Boston.

15. **Rheumatism.**—Osgood reviews the phlegmasia theory of rheumatism during which blood letting was advocated, the lactic acid, uric acid and infective theories. He discusses the progress in treatment with drugs, serum, external or mechanical treatment, and palliative methods, and concludes as follows: We may conclude that acute articular rheumatism has not been conclusively shown on purely scientific grounds to be a specific disease in spite of the very general clinical belief that such a disease exists as an entity; that the salicyl compounds, while unquestioned controllers of pain, have not been scientifically proved to control or even shorten the course of the disease; that recent progress in treatment has been made along the lines suggested by the conception of the infective nature of the disease called acute rheumatic fever; that the tendency of this treatment is to place less reliance on drugs and more reliance on those measures calculated to combat the infection and conserve those natural forces within the body whose protective activities are called forth by the appropriate disturbance. Of the chronic types of rheumatism, without attempting any classification, he says that we may with almost common consent speak of a group of conditions which in nearly all their manifestations suggest an infectious origin—gonorrheal rheumatism and the chronic joint involvements following gynecologic infections, acute rheumatic fever, grippe, pneumonia, tonsillitis, typhoid and other diseases. Certain other chronic types in which bacteriologic research thus far has been futile present such a different clinical picture and manifest changes of such different chronology and sequence as to suggest metabolic changes only directly. He describes the attack at present being made on the whole class of chronic joint diseases, and reviews the status of treatment in infectious arthritis and the nature and treatment of the chronic forms probably not infectious. Among conditions heretofore called rheumatism, he describes lesions of various bursæ, lame back, lumbago, sciatica, sacroiliac disease, and those indefinite muscular articular pains which are often fleeting and productive of no definite lesion, other than the evidence of joint strain. He feels confident that they will be found to be closely related to occupation neuroses or to attitude, poise and balance.

16. **Puerperal Infection with Bacillus Aërogenes Capsulatus.**—Young and Rhea report two cases in which abortion was followed by the very rare form of puerperal infection with the *Bacillus aërogenes capsulatus.* The first case is noteworthy for the fact that a pure culture of the gas bacillus was obtained from the circulating blood during life. Clinically, the second case is interesting on account of the extraordinary extent of the cutaneous emphysema during life, and the high leucocyte count, 126,400; also in view of the possibility of an autoinfection, as the patient persistently denied any vaginal examination or attempt at criminal abortion. The skin of both patients was of a deep copper color, with spots of dark

purple, analogous to the appearance sometimes seen after the long use of hot applications. This characteristic appearance has not been noted previously, so far as is known.

19. **Teaching of Therapeutics.**—Tyrode briefly reviews the history of opinion in regard to therapeutics, which brought the profession to a state of therapeutic nihilism, and notes with satisfaction a reaction reinstating therapeutics. The treatment of disease can be divided into four great fields: the physical, including surgery, hydrotherapy, massage, gymnastics, *x*-rays, Finsen rays and radium; the psychical, dealing with mental suggestion in the waking, hypnoidal or hypnotic states; the dietetic; and the chemical, or medicinal, which deals with drugs in the old sense of the word and with organ preparations, serums and antitoxins. In view of these facts, an adequate course in therapeutics at present should devote a large part of its time to chemical agents, without neglecting the mechanical, dietetic and psychical. The courses in chemical or medicinal agents should consist of one on materia medica, where the chemical and psychical properties are studied, and another in pharmacodynamics, or experimental therapeutics, where the action of these bodies is investigated. Exclusive of surgery, therapeutics other than medicinal should be taught by separate and practical courses. There should be a general course on therapeutics, besides the practical therapeutics taught in all special clinics. There should be a special organization of the men teaching therapeutics in its different branches, so that they might meet frequently and agree on plans for thorough cooperation.

Lancet-Clinic, Cincinnati

April 3

20 When Should the Prostate be Removed? E. O. Smith, Cincinnati.
21 Appendicitis with Abscess Formation, Based on a Study of 48 Cases. H. J. Whitacre, Cincinnati.
22 Cardiac Complications of Rheumatic Fever. A. A. Robinson, Ogden, Utah.

Northwestern Lancet, Minneapolis

April 1

23 Record of First Year's Work at the Minnesota State Sanatorium. W. J. Marcley, Walker, Minn.
24 Lacerations of the Parturient Canal: Their Prevention and Immediate Treatment. D. L. Rundlett, Sioux Falls, S. D.
25 *Acute Anterior Poliomyelitis. H. G. Franzen, Minneapolis.
26 Spina Bifida. A. E. Hedback, Minneapolis.
27 A Common Nervous Disease. H. Sneve, St. Paul.

25. **Anterior Poliomyelitis.**—Franzen reports a case having the unusual features of perfect anesthesia, absence of preliminary fever, and persistent coldness of the skin. Electricity should not be used in the early stages of this disease, as Franzen has noted positive harm from it in acute inflammation.

Surgery, Gynecology and Obstetrics, Chicago

March

28 Renal Diagnosis. C. H. Chetwood, New York.
29 Tuberculosis of the Cervical Lymph Nodes: 275 Cases Treated by Radical Extirpation. C. N. Dowd, New York.
30 *Mortality in 1,000 Operations for Goiter. C. H. Mayo, Rochester, Minn.
31 Hysterectomy. W. D. Hamilton, Columbus, O.
32 *Twin Tubal Pregnancy and Bilateral Tubal Pregnancy. L. P. McCalla, Boise, Idaho.
33 *Surgery of the Lungs Under Positive and Negative Pressure. S. Robinson and G. A. Leland, Boston.
34 Primary Carcinoma of the Fallopian Tube. C. C. Norris, Philadelphia.
35 Thyroidectomy for Exophthalmic Goiter. A. H. Ferguson, Chicago.
36 An Anatomic Anomaly of Importance in Gastrojejunostomy. C. G. Levison, San Francisco.
37 *Resection of the Bowel. J. S. Horsley, Richmond, Va.
38 *Points in the Surgery of the Bile Tracts. C. U. Collins, Peoria, Ill.
39 Uterine and Bladder Displacements and the Best Operations for Their Cure. I. S. Stone, Washington, D. C.
40 An Atypical Matas Operation for Femoral Aneurism. J. M. Wainwright, Scranton, Pa.
41 A New, Quick, and Practical Surgical Knot. E. P. Quain, Bismarck, N. D.

30. **Mortality in Goiter Operations.**—Mayo says that in conquering serious diseases by surgical means, the operation itself must be as free from mortality as possible. As surgical technic and sound judgment render operating comparatively safe, serious procedures are chosen as operations of expediency and the operative mortality becomes lower, the disability is reduced, and the permanency of cure is increased. Goiter is still considered a rare disease in this country, and serious only when operated on. The mortality from early operations was high for the number operated on, as the operations were performed from great necessity after the delay of long and oft-changed medication. Operations on colloid, simple or diffuse adenomata, as a rule, involve slight risk to life. In early surgical work in hyperthyroidism 25 per cent. mortality was considered up to average; with better judgment and more careful preparation of the patient, or with graduated operations, the mortality has been reduced to 3 or 4 per cent. Mayo has in his series of 1,000 operations 574 cases of simple, colloid or diffuse adenomata, including encapsulated goiter, treated by extirpation or enucleation, with four deaths; 18 malignant, with one death; 97 cases of hyperthyroidism treated by double ligation of the superior thyroid arteries and veins, with one death, and 15 cases with single ligation, with no deaths. There were 295 cases in which more or less of the gland was removed, with 18 deaths, 7 of which were in the first 46 cases; 1 ligation, shock; 15 hyperthyroidism; 2 embolism. Ether was preceded by atropin, 1/120, morphin 1/6. Over twenty operations were done under cocain local anesthesia. Goiter of long standing may become malignant; surgeons, therefore, should encourage early operations in sudden growths of stationary glands.

32. **Twin Tubal Pregnancy.**—McCalla considers that the best specification would be as follows:

1. Twin tubal pregnancy, or tubal twin pregnancy; one tube contains two embryos.
2. Bilateral tubal pregnancy; each tube contains an embryo.
3. Multiple tubal pregnancy; one tube contains one embryo and the other two or more.
4. Multiple tubal pregnancy; one tube contains no embryo, and the pregnant tube contains three or more embryos.

He tabulates 25 cases of the first, and 36 cases of the second variety, and adds 1 case of the second from his own practice. He discusses the diagnosis and operative treatment. He is convinced that the operator's individual experience and fitness should determine the time and route for operation. An abdominal operation may give more direct shock, which, to a woman who is already all but dead from shock, is a bad feature; but for one to attempt to operate by the vaginal route who is unfamiliar with the work, might give more shock to the woman than operation by the abdominal route, with which he is thoroughly conversant. McCalla is convinced, however, that to the operator familiar with vaginal work on the tubes and ovaries, that route will be the operation of choice. It gives less shock, it should require less time to do the work, and the blood clots left in the abdomen, so long as no sepsis has taken place, will do far less harm than a protracted effort to remove them by a long abdominal operation. Should the abdominal route be the operation of choice, very little time should be spent in removing the blood from the peritoneal cavity in a woman almost moribund from shock; let it alone. In this, as well as in severe cases of peritonitis, the application of the maxim applies: "Get in quick and get out quicker," provided you do your work well, and close the bleeding vessels and remove only the large blood clots by a rapid movement of the hand sweeping around the abdominal cavity. Devote time to restoring the lost vital forces. Give infusion of blood by direct transmission if it is possible to get a healthy donor, or by saline solution if not prepared to use the other. In this kind of case, let all efforts be to save the woman, and not to do any special kind of operation or to make too careful a toilet of the peritoneum.

33. **Surgery of the Lungs.**—Robinson and Leland discuss the question of positive or negative pressure in lung surgery and review the different methods of supplying the four elements necessary to positive pressure apparatus, namely air compression, an anesthetizing segment arc, a device for introducing these into the respiratory tract, and a means of varying the resistance to expiration. They conclude:

1. The positive-pressure method, as proved by experiments, has no more pathologic effect on the circulatory and respiratory functions than negative pressure.
2. The clinical operative results under positive pressure have justified its employment.

3 It possesses many advantages over the negative pressure method

4 Air compression should be excessive rather than insufficient, and is most conveniently supplied directly from a small rotary air-pump.

5. The anesthetizing segment should consist of an ether bottle with side tracking connections, and permanent joints arranged in the simplest possible manner. Rectal anesthesia, when used, dispenses with this portion of the apparatus

6 A positive-pressure apparatus should be supplied with a face mask which, in accidental pleural punctures with subsequent dyspnea, will amply suffice for emergency use In most thoracic operations, it could be removed, in case of vomiting, without danger

7 For extensive resections of the chest wall in the absence of adhesions, when the permanence of the air compression is essential, peroral intubation should eventually become the method of choice. A tube for the human has not yet been perfected

8 For animal experimentation, masking and intubation are unquestionably the methods of choice

9. The water bottle is the preferred device for resistance, because always available and regulated with ease.

10. All forms of rhythmical artificial respiratory devices are too elaborate for universal surgical application.

11 Afferent air of sufficient volume and pressure, with low resistance to support the normal respiratory movements, by providing air exchange and preventing collapse, is the fundamental principle of positive pressure.

The authors next describe a series of eighteen animal operations with experiments, which show that while positive pressure is not a *sine qua non* for preservation of life in the rabbit during opening of the pleural cavity, it is fatal in the dark. Human individuals may possibly vary, some resembling one, some the other.

37. Abstracted in The Journal, Jan. 16, 1909, p. 241.

38. Abstracted in The Journal, Jan. 30, 1909, p 413.

Archives of Internal Medicine, Chicago

March

42 *Nuclear Particles in the Erythrocytes. R. S. Morris, Baltimore
43 *Specific Chemical Therapy of the Trypanosomiases and Spirilloses B. T. Terry, New York
44 The Agglutinating Power of the Blood Serum of Tuberculous Patients P Courmont, Lyons, France.
45 *Effect of Adrenalin on Intestinal Hemorrhage. C. J. Wiggers, Detroit
46 *The Therapy of Diabetes Mellitus. W. Falta, Vienna, Austria.
47 Production of Morbid Changes in the Blood Vessels of the Rabbit by Alcohol. W. de B. MacNider, Chapel Hill, N. C.

42. **The Erythrocytes.**—Morris says that evidence of regeneration of the blood is of great value, not only in the diagnosis, but also in the prognosis and treatment of anemias. In addition to the ordinary signs he refers to the presence, which, with certain exceptions he has constantly found, of a few very characteristic nuclear particles in specimens of cat's blood, fixed and stained in the usual manner. Nuclear particles have been found in full grown animals only during active regeneration of the blood, that is, after severe or repeated hemorrhages, etc. They have been found in the blood of embryonic animals and of the human embryo, and in the most varied conditions in some human adults, in whose blood other evidences of regeneration were present. As yet, Morris has not found them in normal blood, but has observed them in nine cases of pernicious anemia, in two cases of anemia in infants, in two cases of secondary anemia, in three of chronic myeloid anemia, and in one of anemia after splenectomy. They were also present in smears of the bone marrow in two cases of pernicious anemia. Since they are found in bone marrow, and are almost always associated with other evidences of regeneration of the blood, he thinks that nuclear particles may safely be considered a sign of regeneration. Morris describes the method of staining to demonstrate them, and discusses the relations and differences between them and Howell's bodies

43. **Trypanosomiases and Spirilloses.**—Terry discusses trypanosomiases in general and reviews their therapy since 1904. He describes four groups of medicaments: (1) The benzidine dyes; (2) the basic tryphenyl methane; (3) arsenical compounds (sleeping sickness); (4) antimony compounds He discusses the drawbacks and dangers of treatment, the recently discovered resistant strains, the natural variability of trypanosomes and the combined treatment by the simultaneous or alternate use of two or more medicaments or methods of administration. He next discusses the spirilloses, (1) of fowls (South America); (2) of African tick fever; (3) of European relapsing fever; (4) syphilis.

45. **Adrenalin in Intestinal Hemorrhage.**—Wiggers reports in detail a careful study of this subject, and draws the following conclusions:

1. Large doses of adrenalin (from 0 05 to 0 1 mg.) cause a short preliminary increase in hemorrhage, followed quickly by a decrease or cessation of bleeding On account of the great preliminary loss of blood they are always contraindicated.

2. Small doses of adrenalin (from 0.1 to 0 25 mg.) cause little or no preliminary increase, but shorten the course of hemorrhage. As they save the red blood cells in every way, they are therapeutically desirable.

3. The method of introducing adrenalin determines the effect on blood [illegible] No results are obtained by subcutane [illegible] continuous intravenous injection of weak [illegible] on of pressure can be maintained [illegible] usly checked. This can also be ac[illegible] njections [illegible] in all intestinal hemorrhages. The [illegible] e is the criterion for its use In hemorrhages of short duration, when the pressure has not fallen to any extent, a judicious dose of nitrites proves of more benefit than adrenalin. When the bleeding has been profuse, however, and a low pressure already exists it becomes vital that hemorrhage should be checked without further reduction of pressure. Adrenalin finds its use in this field.

5 The use of adrenalin should always be closely followed by blood pressure observations A dose sure to be below the safety limit should first be tried and the pressure carefully estimated. If no rise occurs, gradually increasing doses may be injected until a slight elevation of pressure is present, in which case we may be certain that enough has been introduced to affect hemorrhage, and at least no significant preliminary increase has resulted.

46. **Diabetes Mellitus.**—Falta says that we must not seek in the pancreas the sole cause of the disease, and states that a rôle is also played therein by other organs which elaborate internal secretions, and especially by the nervous system. As we are ignorant of the ultimate cause of the metabolic disturbance, a causal therapy is out of the question. Sympathetic therapy seeks in the first instance to combat the most prominent symptom, the excretion of sugar and its results. Theoretically two possibilities exist: (1) To increase the efficiency of carbohydrate metabolism—efforts in this direction so far have shown but slight success; (2) to diminish the requirements, thereby giving the diseased organ or organs the opportunity of recovery. This is the foundation of the dietetic therapy. After a brief discussion of a small group of cases which manifest a marked disease of the pancreas and often require a special therapy, he turns to the disturbances of the carbohydrate metabolism, in which the chief end of dietetic therapy is the depression of glycosuria. He discusses the grounds on which this end is sought and the methods of attaining it. He insists on the value of the oatmeal therapy, first recommended by von Noorden, and describes the method. He defends it against the criticisms of Naunyn and others, and describes its remarkable results, admitting that the cause of the remarkable effect of oatmeal is as yet unknown.

Philippine Journal of Science, Manila

November

48 Precipitin and Complement Fixation Reactions. H. T. Marshal and O Teague, Manila
49 Tuberculo Toxoidin and Immunization Serum. T. Ishigami, Osaka, Japan
50 A New Intestinal Trematode of Man. P. E Garrison, Manila.
51 Blastomycosis of the Skin in the Philippines. J. M Phalen and H. J. Nichols, Manila
52 Reduction in the Cost of Anti Cattle Plague Serum. E H. Ruediger, Manila.
53 Three Hundred Examinations of Feces for Amebas. R. E. Hoyt, U. S Navy
54 Inoculation of Bacterial Vaccines as a Practical Method for Treatment of Bacterial Diseases, Especially Gonococcus Infections. E R. Whitmore, U. S. Army.
55 Sanitary Conditions and Needs in Provincial Towns T. W. Jackson, Medical Reserve Corps, Fort McKinley.

Alabama Medical Journal, Birmingham

March

56 Pathology and Etiology of Diabetes Mellitus. J. S. McLester Birmingham
57 *Serodiagnosis of Syphilis and its Clinical Value. W. J. Butler, Chicago
58 Complications of Pneumonia J. B Cooper, Birmingham.
59 Correct Method of Examination of the Rectum and the Diagnosis of Hypertrophied Valves J C Walter, Birmingham.
60 Treatment of Diphtheria, with Special Reference to Intubation and Tracheotomy. J. E Seay, Pratt City.
61 Appendicostomy A. Hayes, Birmingham

57. Published in the *Illinois Medical Journal*, December, 1908, the *New York Medical Journal*, Jan. 30, 1909, and the *Chicago Medical Recorder*, March, 1909, and abstracted in The Journal, Feb. 13. 1909, p. 588.

Archives of Pediatrics, New York

March

62 *Case of Congenital Malformation of the Esophagus. J. P. C. Griffith and R. S. Lavenson, Philadelphia.
63 *Spasmodic Stricture of the Esophagus. S. S. Adams, Washington, D. C.
64 *Transmission and Progress of Tuberculosis in Children Through Family Association. C. Floyd and H. L. Bowditch, Boston.
65 Artificial Feeding of Infants. J. Levy, Newark, N. J.
66 Leucocytes in Pulmonary Diseases of Children. I. S. Wile, New York.

62, 63. Abstracted in The Journal, July 11, 1908, p. 155.

64. Abstracted in The Journal, Oct. 17, 1908, p. 1366.

California State Journal of Medicine, San Francisco

March

67 Review of the Work Done in the Anatomic Department of Cooper Medical College. F. E. Blaisdell, San Francisco.
68 *Tobacco Amblyopia (from Cigars) in a Woman. W. S. Franklin, San Francisco.
69 *Pyloric Stenosis in the New-Born. H. J. Kreutzmann, San Francisco.*
70 The Faucial Tonsils Considered from a Medical and Surgical Standpoint. L. C. Deane, San Francisco.
71 *Tests for Involvement of the Labyrinth in Suppurative Middle-Ear Processes. G. P. Wintermute, Oakland.
72 *The Leukemias and Allied Diseases. H. Harris, San Francisco.
73 The Influence of Climate on Tuberculosis, with Remarks on the Climate of Colfax, Cal. R. A. Peers, Colfax.
74 *Waxed Silk as a Suture. C. E. Thompson, Dunsmuir.

68. **Tobacco Amblyopia.**—Franklin records the case of a Swedish woman, single, aged 52, with tobacco amblyopia, who had been in the habit of smoking from six to eight domestic cigars daily. He discusses the pathologic changes in the optic nerve due to tobacco, which are identical with those caused by alcohol or by the mixed intoxication of alcohol and tobacco. No clinical differentiation is possible between them. In this case, however, Franklin believes the woman's denial of alcohol. He quotes Martin's opinion that in tobacco cases the pupil is contracted, and in alcohol cases dilated, but in the author's case the pupil was moderately dilated. The excess of cases in men is due, not to any predisposition, but to the greater numbers of tobacco and alcohol users among them. In women the amblyopia is generally of the mixed form, but Franklin considers his case as one of pure nicotine neuritis. All forms of tobacco use can induce the neuritis. He discusses the varieties of tobacco and their nicotin content. The diagnosis is made by the reduced vision, the paleness of the temporal quadrant of the disc, and the central scotomata. The latter are in the beginning only relative for colors, then for form. and vary toward all degrees of the absolute, depending on the stage of the neuritis. In a large number of cases the complete stopping of nicotin will effect a cure.

71. **Tests of Labyrinth Involvement in Otitis Media.**—Wintermute describes in detail the tests devised by Barany of Vienna, by means of which the degree of labyrinth involvement may be ascertained in suppurative otitis media and mastoid conditions. These tests are based on the normal reflex reactions of the semicircular canals in producing nystagmus. If the reactions are normal, labyrinth involvement is ruled out; if they are impaired, lost, heightened, or abnormally produced, the condition of the organ of hearing and the objective symptoms may be accurately ascertained. In Barany's tests, the movement of the endolymph is obtained by turning the patient in a revolving chair. As it is impossible, however, to measure the nystagmus while the patient is being revolved, the chair is brought to a standstill after being revolved ten times; the endolymph, following the law of a body in motion remaining in motion is circulating in the direction of the revolutions—toward the right. The nystagmus is to the left, and the patient being stationary the duration of the reflex is timed with a stop-watch from the instant of stopping the revolutions to the time of the cessation of the reflex movement. When the horizontal canal is tested the resulting nystagmus is horizontal. By bringing the patient's chin down and flexing the head forward at right angles, the anterior vertical canals are brought into the plane of the centrifugal force, and the endolymphatic movements take place in them, the horizontal and vertical canals being unaffected. The nystagmus from the anterior vertical canal is rotary, corresponding to the wheel-like motion of the eye, and in direction, follows the law of being contrary to the endolymphatic movement. By bending the patient's head sharply over either shoulder and revolving him in a similar manner the posterior vertical canals receive the centrifugal impact and the resulting reflex is a vertical up and down nystagmus. By successively changing the position of the head in this way, all the canals may be tested and the results show that each canal produces the movement in its own plane. Wintermute also describes the caloric nystagmus test and states that with a normal labyrinth the patient responds with a rotary nystagmus; if cold be used on the right side there is nystagmus to the left, while the reverse is the case if heat is used. If the middle ear be filled with a mass of cholesteatoma or polyps, the caloric change may not reach the canal and there is no reaction.

72. **The Leukemias.**—Harris attempts to prove that the following diseases are essentially malignant in their nature: Lymphosarcoma, leukosarcoma, chronic lymphocytic leukemia, chloroma, Hodgkins' disease, and other forms of pseudoleukemia, chronic myelocytic leukemia and myeloma. Some show an increase of various white cells in the blood and this impression of increased leukocytosis is dominant in the minds of most physicians. Harris tries to show that the importance of the blood picture is overaccentuated and that as ordinarily accepted it is not pathognomonic, but rather that of a biologic reaction. He accentuates the statement that the ordinary blood picture of the chronic leukemias as we now understand it has been observed in other conditions, and the converse is likewise true; for leukemia has been repeatedly proved at the bedside and autopsy table minus the usual blood picture.

74. **Waxed Silk.**—Thompson describes his procedure for waxing silk for suture material, and claims for this material the following advantages: Its sterility and the ease of keeping it sterile; the absence of capillary attraction; it does not irritate the tissues; it does not adhere to the tissues, dressings or secretions; it is easily removed; it is easily prepared; it is convenient to carry, easy to thread, and in tying it the knot does not slip so easily as plain silk.

Montreal Medical Journal

March

75 Pathology and Treatment of Diabetes Mellitus, Viewed by the Light of Present-Day Knowledge. *F. W. Pavy, London, Eng.*
76 Demonstration of the *Spirochaeta pallida* from a Mucous Patch of the [illegible] Montreal.
77 Plate for the Re[illegible] Metatarso-Phalangeal Joint. J. A. Nutter, Montreal.
78 Surgical Treatment of Non-Resilient Diverticula of the Bladder. E. M. von Eberts, Montreal.
79 Perforative Appendicitis: Venous Thrombosis, Paratyphoid, Intestinal Obstruction. J. Bell, Montreal.

Southern Medical Journal, Nashville, Tenn.

March

80 Conservative Surgery, Then and Now. F. W. Parham, New Orleans.
81 *Vaginal Hysterectomy for Carcinoma of the Cervix. H. T. Byford, Chicago.
82 *Cancer of the Parotid Gland. G. A. Hendon, Louisville, Ky.
83 Urethral Transplantation. *J. D. S. Davis, Birmingham, Ala.*
84 *Surgical Treatment of Exophthalmic Goiter. J. R. Wathen, Louisville, Ky.
85 *Rare Forms of Hematoma. J. G. Sherrill, Louisville, Ky.
86 Cesarean Section in Which the Uterus Was Incarcerated in a Ventral Hernia. X. O. Werder, *Pittsburg, Pa.*
87 Primary Bladder Suture with Special Reference to Suprapubic Cystotomy. L *Frank, Louisville.*
88 **Bilateral Polycystic Degeneration of the Kidneys.* J. W. Bovee, Washington.
89 Elephantiasis of the Male Genitalia. J. N. Baker, Montgomery, Ala.
90 False Aneurism of the Femoral Artery, Following Typhoid. R. S. Cathcart, Charleston, S. C.

81, 84, 85. Abstracted in The Journal, Jan. 16, 1909, pp. 242 and 243.

82. **Cancer of the Parotid.**—Hendon reports five cases, in all of which operation was successfully performed, though one patient, aged 71, succumbed within a year.

88. **Polycystic Degeneration of the Kidneys.**—Bovee discusses this subject anatomically, pathologically, microscopically, and also with regard to the symptoms, prognosis and

treatment. The latter, he says, is non-surgical, except in two conditions, first, when the disease is unilateral or is reasonably concluded to be so, and second, when the cysts are so large as to be burdensome in any way. In the former, incision, or possibly nephrectomy, is advisable. If the ureter or other part of the purely waste-bearing portion of the corresponding half of the urinary tract be hopelessly obstructed beyond a period of six weeks the function of the corresponding kidney will be permanently suspended, and nephrectomy is preferable to incision or multiple incisions. But if urine is found to be pouring from both ureters, then nephrectomy should not be done, except in the very exceptional unilateral polycystic kidney. Were it at all apparent that the presence of the disease in one kidney had a tendency to stimulation of its development in the other kidney, he would feel less positive in this matter. In the second condition, puncture or incision seems applicable, whether the disease is unilateral or bilateral. If cystoscopy reveals both ureters to be functionating, then, even though but one kidney is involved, nephrectomy should not be performed, except in the rarest circumstances—such as hemorrhage limited to the affected side.

Dominion Medical Monthly, Toronto

March

91 Stricture of the Urethra W Scott, Toronto
92 Complications of Pulmonary Tuberculosis and Their Treatment. J. K M. Gordon, Gravenhurst, Ont.

Interstate Medical Journal, St. Louis

March

93 *Dismemberment of Traditional Hysteria: Pithiatism. J. Babinski, Paris
94 *Anatomy and Surgery of the Hard Palate of the Infant. V. P. Blair, St. Louis
95 Treatment of Dislocation of the Peroneal Tendons. E A. Tracy, Boston.
96 Value of Color Photography in the Teaching of Pathology. G. McConnell, St Louis

93. This subject was discussed in The Journal, Aug. 8, 1908, p. 537, and Sept. 12, 1908, p. 929.

94 **Cleft Palate.**—Blair illustrates certain anatomic points, with their surgical bearing, by illustrations of frozen sections, diagrams and plaster casts. He discusses the etiology of cleft palate, and describes Brophy's operation, which he considers the most effectual operation devised. He has found a supplementary wire approximating the alveoli in front to be advantageous. He passes the wires so that they enter the orbit just above its floor, using needles curved to three-fourths of a circle Personally, Blair sees no reason why repair of the lip should not closely follow closure of the hard palate, thus correcting facial deformity.

Iowa Medical Journal, Des Moines

March

97 Osteomyelitis E E Dunkelberg, Waterloo
98 The Appendix as a Hernial Content C. S James, Centerville.
99 Anesthesia L W Littig, Iowa City.
100 Empyema I S Bigelow, Dubuque.
101 Treatment of Cancer E H Robb, Newton.
102 Hernia. J. H Maynard Adair.
103 Medical Progress in 1908. S R Klein, Chicago
104 Urinary Vesical Calculus J. H. Talboy, Sioux City.

Long Island Medical Journal, Brooklyn

March

105 *Diagnosis, and When to Operate in Ectopic Gestation. J. O. Polak, Brooklyn
106 Progress [illegible] C Hancock, Brooklyn
107 Drug [illegible] somnia and a Comparison of the [illegible] Luhrsen, Brooklyn.
108 *Head [illegible] Brooklyn.
109 A Plea [illegible] L. P. Hoole, Brooklyn.

105 **Extrauterine Pregnancy.**—Polak describes the signs of rupture, laying particular stress—after the occurrence of severe pain over one or other tubal region or radiating over the entire abdomen or referred to the epigastrium—on extreme sensitiveness of the abdomen, with a diffuse rigidity immediately after rupture, accompanied by small, frequent, and thready pulse, air hunger, sighing respiration and audible yawning. The objects of the operation for ectopic pregnancy are: *First*, control of hemorrhage, or prevention of recurrence of bleeding by careful ligation; second, removal of the débris incident to the tubal abortion or rupture; third, filling up of the volume of blood current in such a way as to permit Nature to adjust itself to the new condition. He discusses the views of Hunter and others, who have questioned the propriety of operating at once in every case on experimental evidence that bitches whose ovarian arteries had been cut had failed to bleed to death. Polak argues that in the lower animals the conditions are different from what takes place in the human female. He admits that he has never seen a vessel actively bleeding at the time of operation, and also that if the patient were going to bleed to death she would probably be dead before being seen by the surgeon, but there is no way of knowing positively in which case bleeding will stop spontaneously. When the signs show rupture into the broad ligament, with formation of a hematoma, Polak's custom has been to wait. In these cases the uterus is usually markedly displaced to one side or carried up over the pubis by intraligamentous distention. When these findings are definite, the free use of morphin, elevated foot posture, and the maintenance of firm abdominal pressure with sand bags have controlled extensive dissection of the peritoneum and favored clot formation. In the course of from four to seven days, a vaginal incision may be made and drainage established. In all other forms of this accident abdominal incision offers the speediest and safest results. A pulse of 100 or less permits delay, while increased rapidity, fall in blood pressure, or falling hemoglobin percentage, demands prompt section. He describes his technic.

108 **Head Injuries.**—Simmons describes eight cases and discusses the question of fractures of the base of the skull in connection with the decompression operation. His own opinion in the matter is that basal fractures should be left alone if there is, in a reasonable time, some evidence of improvement. If, however, there appears no tendency to recovery or if the symptoms at first, slight or severe, do not improve or decrease in intensity, then he deems it wise to explore the middle fossa on both sides if necessary and thus give these desperate conditions the only aid possible from a surgical standpoint.

University of Pennsylvania Medical Bulletin, Philadelphia

March

110 Charles Darwin, the Man and His Influence. G. A. Piersol, [illegible]
111 *S[illegible]tiple Sclerosis. W. G. Spiller and A. H. W[illegible]
112 *Recent Advances in the Physiology of Saliva, Together with Certain Aspects of its Pathology. E. H. Goodman, Philadelphia.
113 Habitual or Recurrent Anterior Dislocation of the Shoulder. J. T. Thomas, Philadelphia.

111. **Syphilitic Multiple Sclerosis.**—Spiller and Woods report a case, with special attention to its pathologic aspect, and deduce the following conclusions:

1 Syphilis, in rare instances, may cause a symptomatology indistinguishable from that of typical multiple sclerosis, and this without the formation of sclerotic plaques, but by the ordinary lesions of syphilis, viz, arteritis and meningitis.

2 Syphilis may produce in the spinal cord sclerotic plaques resembling those of multiple sclerosis, without producing the typical symptoms of this disease These plaques have not the sharp definition seen in most cases of typical multiple sclerosis, and yet multiple sclerosis may exist without plaques sharply defined from the normal tissue The syphilitic form of multiple sclerosis presents round cell infiltration of the pia and thickening of the blood vessels. Thickened vessels with a small amount of perivascular sclerosis will usually be found in certain regions without the formation of plaques, though plaques may be present at other levels of the cord. In some places slight neuroglia proliferation without thickened vessels may be detected, resembling in no way true plaque formation, but appearing more in the nature of slight diffuse secondary degeneration. Gumma also may occur in the brain. Secondary degeneration is more common in the syphilitic type, but does occur rarely in multiple sclerosis Nerve fibers are not always completely degenerated in the syphilitic plaques. Careful and thorough examination will almost always, if not always, make a diagnosis possible between the lesions of syphilis and those of multiple sclerosis, even though they may have a decided superficial resemblance.

112 **Physiology of the Saliva.**—This paper is essentially a review. It discusses the physiology and the nervous mechanism of salivary secretion, salivary digestion, the pathology of saliva, its diminution and increase. It deserves special commendation for the fact that the twenty-four references given in the bibliography have not been taken at random from other bibliographies and indexes, but are the result of a careful assay of the more than 100 studied by the writer.

Yale Medical Journal, New Haven, Conn.

March

114 *Why is Incipient Pulmonary Tuberculosis so Rarely Recognized? A Study of 150 Cases. H. F. Stoll, Hartford, Conn.
115 *Drainage of the Bladder in the Aged and Infirm. G. P. Harris, Norwich, Conn.

114. Discussed editorially in The Journal, April 10, p. 1186.

115. **Drainage of the Bladder.**—Harris first describes the anatomy of the bladder and its function, and traces the history of draining it. Cystitis is probably the most common cause for drainage, when associated with thick and inflamed bladder walls and urine loaded with pus, mucus and blood, decomposed and foul smelling. This condition is usually found in elderly patients as a result of enlarged prostate, but in younger persons it may exist as the result of obstruction due to urethral stricture. In either case, free drainage of the bladder should be secured, and the bladder washed out. These cases are never too far advanced for treatment, as frequently one kidney is involved before the other, and if the process can be stopped by washing out the bladder regularly the remaining kidney will be able to carry out the work and the patient may recover. He describes the operation of suprapubic cystotomy.

Old Dominion Journal of Medicine and Surgery, Richmond

March

116 *Myoma and Myosarcoma of the Stomach. J. E. Thompson, Galveston, Tex.
117 Laboratory Methods in the Diagnosis of Typhoid. T. R. Boggs, Baltimore.
118 Acute Intestinal Obstruction. S. H. Watts, Charlottesville, Va.
119 What is Minor Surgery? H. A. Royster, Raleigh, N. C.
120 *Gonorrheal Arthritis with Special Reference to the Knee Joint. W. Moncure, Raleigh, N. C.
121 Tuberculous Anorectal Fistula. E. H. Terrell, Richmond, Va.
122 Principles Underlying the Treatment of Uterine Retroversion and Prolapse. R. L. Payne, Norfolk, Va.
123 Case of Quadruplets. E. T. Hargrave, Norfolk, Va.
124 Pathology and Symptomatology of Pneumonia. A. B. Greiner, Rural Retreat, Va.

116. **Myoma of the Stomach.**—Thompson describes an interesting case and analyzes 62 cases found in the literature, of which 19 were operative, the remainder being found at autopsies or as specimens in pathologic museums. From these cases he draws up the following synthesis: The affection is one of adult life, rare before 30, and more common after 40. No conclusions can be drawn as to sex incidence. Profuse hemorrhages are liable to occur from tumors of a considerable size that project into the lumen of the stomach. Analyses of stomach contents afford no valuable information. Pyloric obstruction was a definite symptom in only 3 cases. A palpable abdominal tumor was definite in 18 cases. In only 3 cases was the condition associated with myoma elsewhere. The size varied within great limits. Some of the tumors grow into the stomach like polypi, others toward the peritoneal cavity; only in the earliest stages can they be intramural. Large mild sarcomata frequently have large cystic cavities. Metastases are mentioned in some instances. He gives a bibliography of autopsies.

120. **Gonorrheal Arthritis.**—Moncure, discussing the treatment of acute cases, says that the uselessness of the biologic product is in direct proportion to the acuteness of the process. There are reports of the treatment of gonorrheal arthritis with various serums or antitoxins, and lately by injection of large numbers of dead gonococci or vaccines. Serums or antitoxins have been generally discarded and some reports indicate that the vaccines are more beneficial, especially in very chronic cases. Whatever valuation time and experience may place on the vaccines, in the light of our present knowledge it is much safer to open these joints early than to await for weeks a doubtful result, with the probability of making a cripple and an opium habitué of the patient. When the disease is at all severe, early incision, free flushing of the joint, suturing and injecting with a bland sedative petroleum preparation seems, to his mind, the most rational course to pursue. And this operative treatment can, if desirable, be supplemented with bacterial injections. Finally, adhesions, organized thrombi, ankylosis, subluxations, and contractured tendons are not in the least amenable to vaccines, or to any treatment except corrective operations.

Journal Tennessee State Medical Association, Nashville

March

125 Inversion of the Uterus. J. M. Overton, Nashville.
126 Obstetrics and Obstetric Surgery in the Country. B. F. Fyke, Springfield, Tenn.
127 Croupous, or Lobar Pneumonia. W. L. Carden, Andersonville.
128 *Fracture of the Clavicle.* D. Eve, Nashville.
129 Medicine. J. P. Blankenship, Maryville.

Journal of the Kansas Medical Society, Kansas City

March

130 *Potency of Out-Dated Diphtheria Antitoxin. J. E. Hunt, Kansas City.
131 Exophthalmic Goiter. M. T. Sudler, Lawrence, Kan.
132 Tonsillotomy and Tonsillectomy. J. S. Wever, Kansas City, Mo.
133 Should Kansas Maintain an Institution for the Care of Her *Tuberculous Citizens?* J. A. Milligan, Garnett.
134 *Appendicitis in an Infant Aged Seven Months. The Difficulty of Diagnosis *Probably Accountable for the Rarity* of the Condition in Infants. R. B. Gibb, Pittsburg, Kan.
135 *Early Infantile Mortality.* M. R. Mitchell, Kansas City.

130. **Old Diphtheria Antitoxin.**—Hunt reports a number of cases in which outdated diphtheria antitoxin was given with good results, from which he concludes that we are never justified in deferring the administration of antitoxin simply because old serum is the only material at hand.

134. **Appendicitis in an Infant.**—Gibb records a case of a "colicky" baby, 7 months old, in which the severity and persistence of the symptoms led to careful investigation under anesthesia, with the result that appendicectomy was done and an inflamed and purulent appendix removed. Recovery was immediate, without shock, and all symptoms were at once relieved. He suggests that possibly the infrequency of appendicitis in infants may be due to its not being diagnosed.

Southern California Practitioner, Los Angeles

March

136 Selwyn Emmett Graves. J. A. Graves, Los Angeles.
137 The Tripod of Medicine, Surgery and the Pathologic Laboratory. A. Vander Veer, Albany, N. Y.
138 Early Diagnosis of Pulmonary Tuberculosis. J. C. King, Banning, Cal.
139 Chronic Nephritis and its Associated Lesions. J. W. Flinn and H. T. Southworth, Prescott, Ariz.
140 The Calmette Reaction. W. W. Watkins, Phoenix, Ariz.
141 The Climate of Southern California. J. A. Munk, Los Angeles.
142 *Ocular Manifestations of Hysteria. W. H. Dudley, Los Angeles.
143 Gonorrheal Ophthalmia. M. M. Cloud, Los Angeles.

142. **Ocular Manifestations of Hysteria.**—Dudley considers especially those ocular manifestations of hysteria that should be borne in mind in doubtful or suspicious cases. These are, first, the anesthesias, manifested by loss of sensation in the eyelids, the conjunctiva and the cornea, by concentric limitation of the field for light and color, by amblyopia, achromatopsia and the so-called inversion of the color fields. Next in order, he places disturbances of accommodation and pupil reaction including the approaching and fixation of the far and near points. These, together with spastic convergence—and they are frequently seen in conjunction—may be considered pathognomonic of this condition, while cycloplegia, with or without mydriasis, in the absence of some known cause, is an important sign. Though other conditions are valuable, these, if sought out and found, will decide the diagnosis in most cases; but they must be looked for, or they are not likely to be found. The marvelous way in which this condition is capable of imitating other diseases renders it highly important that the diagnostician should be always on the alert.

Cleveland Medical Journal

March

144 *[illegible] Months' Clinical Experience with the Use of Koch's [illegible] uberculosis of *Bones and Joints.* W. G. [illegible]
145 [illegible] to be Considered in *Treatment* of Gastric Ulcer. M. J. Lichty, Cleveland.
146 Blepharochalasis. Report of a *Case of* This Trophoneurosis, Involving also the Upper Lip. W. B. Laffer, Cleveland.
147 Wright's Vaccine Therapy, with Report of Cases. L. W. Ladd and H. C. Russ, Cleveland.
148 Necessity for Using a Mydriatic in Refraction. E. P. Morrow, Canton, O.
149 Medical Cleveland in the Nineteenth Century (continued). H. E. Handerson, Cleveland.

144. **Tuberculin Treatment of Bone Tuberculosis.**—Stern concludes that Koch's tuberculin, although a terrible agent for harm when used indiscriminately in large doses is a powerful agent for good when used in small doses, either by the opsonic method of Wright or by the clinical method of Trudeau. Notwithstanding statements of the laboratory men to the contrary, no harm can come and a great deal of good can follow the proper use of tuberculin without the control of the opsonic index. No matter which method is followed, tuberculin must not be used alone for treatment, but must invariably be a part of a rigid medical and surgical antituberculous *régime*.

Ophthalmic Record, Chicago

March

150 Sympathetic Ophthalmia with Report of Pathologic Findings in Two Cases. E. P. Carlton, Chicago, and A. R. Baker, Cleveland.
151 Unusual Cases of Operable Cataract. A. O. Pfingst, Louisville, Ky.
152 Novel Improvised Prothesis. R. A. Fenton, Portland, Ore.

Colorado Medicine, Denver

March

153 Fractures of the Leg. W. W. Grant, Denver.
154 *Immediate Operative Treatment of Certain Fractures. L. Freeman, Denver.
155 The Abuse of the Sharp Uterine Curette. J. F. Coleman, Montrose.
156 When and How to Treat Hernia in the Young. R. W. Corwin, Pueblo.

154. **Operative Treatment of Fractures.**—Freeman describes the operative technic and emphasizes and discusses the following propositions:

1. No recent fracture should be operated on that can be successfully treated by other means.
2. No recent fracture should be operated on except under the most favorable surroundings and by an experienced surgeon who is a master of aseptic technic.
3. The resisting powers of the patient should be taken into careful consideration.
4. The patient's position and duties in life deserve attention.
5. The success of operative intervention depends much on the accessibility of the fracture—the danger varying directly with the amount of manipulation required.
6. It should be recognized that faulty alignment and overlapping of fragments, or even the presence of visible deformity, does not always mean disturbance of function.
7. In estimating the value of an operation the after-treatment deserves consideration; will it be rendered less trying to the patient or give a better result in a shorter space of time?
8. The indications for operation vary greatly with the particular bone which is broken, the character of the break, and its situation in the bone.
9. Admitting the desirability of operating in certain carefully selected cases, it must not be forgotten that there are two important drawbacks—delayed union and sepsis.

Archives of Ophthalmology, New York

March

157 Amaurotic Family Idiocy: Histologic Examination of a Case in Which the Eyes Were Removed Immediately After Death. F. H. Verhoeff, Boston.
158 Cystic Formation by the Pars Ciliaris Retinæ Following a Perforating Wound in the Ciliary Region with the Histologic Findings. B. Chance and H. G. Goldberg, Philadelphia.
159 Keratitis Punctata Superficialis, with Report of a Case. M. Wiener, St. Louis.

Ohio State Medical Journal, Columbus

March

160 More About Cancer of the Rectum. G. B. Evans, Dayton.
161 *A Year's Experience with Lumbar Puncture. C. W. Stone, Cleveland.
162 The Anatomico-Physiologic Basis of Pediatrics. D. S. Hanson, Cleveland.
163 *Economic Importance of the Spread of Trachoma in Ohio. W. H. Snyder, Toledo.
164 *Acute Rheumatoid Infections in Children with Report of Cases. F. P. Anzinger, Springfield.
165 Hygiene of Menstruation. S. J. Goodman, Columbus.
166 The Physician and the Child of the Future. E. H. Smallwood, Chillicothe.

161. **Lumbar Puncture.**—Stone describes and analyses 114 cases in which lumbar puncture was done, often more than once. He recounts the technic, and, as a result of the analysis, emphasizes the following points:

1. The lymphocytes may predominate in an epidemic meningitis and the polymorphonuclear leucocytes in a tuberculous meningitis, as has been noted by Concetti, who stated that a predominance of lymphocytes indicated an irritation of toxic nature, while the predominance of polymorphonuclears indicated an irritation by bacteria.
2. Many of our pneumonia patients with delirium may be found to be actually suffering from a meningitis.
3. Many children with the so-called meningismus may have real meningitis.
4. The cell count of the spinal fluid in cases of suspected lues of the central nervous system is a helpful aid in diagnosis.

163. Abstracted in THE JOURNAL, May 23, 1908, p. 1721.

164. **Rheumatoid Infections in Children.**—Anzinger reports cases, discusses the conditions, and draws the following conclusions:

1. Children are susceptible to the infectious diseases which most adults resist by acquired immunity.
2. Acute pyogenic and septicemic infections are common and, often starting from a trivial lesion, permit widespread metastases and even may prove fatal.
3. In children the soft tissues, especially near the epiphyses and joints, are vulnerable points for micro-organisms and their products. The symptoms of such lesions often simulate acute articular rheumatism.
4. Acute rheumatism is regarded as a specific disease due to a specific organism not as yet fully established. Until the cause is known we must depend on clinical characteristics, which are untrustworthy.
5. Acute rheumatism is comparatively uncommon in children; whereas pyogenic infection finds them frequently among its victims.
6. Heredity and environment are important factors in the predisposition of the child to infection as well as rheumatism.
7. Prophylaxis rests in safeguarding the child's general resistance by proper hygiene. A careful watch should be kept of the infection atria of the child, and every trivial infection be properly treated.
8. When one or more joints become acutely inflamed, tentative measures are justifiable for a short period, to allow for resolution or abatement. If, however, the symptoms continue and the diagnosis is obscure, exploratory incision will in the end subserve the best interests of both patient and physician.

FOREIGN

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

Lancet, London

March 20

1 *Disinfection and Disinfectants. R. T. Hewlett.
2 *X-Ray Carcinoma, and an Experimental Inquiry into the Conditions which Precede its Onset. C. W. Rowntree.
3 *Mechanism Underlying the Various Methods of Artificial Respiration. A. Keith.
4 *Leucocytosis of Epidemic Cerebrospinal Meningitis. W. Dow.
5 Intestinal Pseudoparasitism Due to *Chilodon uncinatus*. P. Manson and L. W. Sambon.
6 Cultivation of *Spirochæta duttoni*. C. M. Duval and J. L. Todd.
7 Uremia or Meningitis. A. E. Garrod.
8 Malignant Disease of the Nasopharynx. W. Stuart-Low.
9 Problems in Mendelism and Some Biologic Considerations: Human Albinos. G. P. Mudge.

1. **Disinfection.**—In the second Milroy lecture, Hewlett describes and discusses the various methods devised for the determination of the germicidal power of disinfectants. Of these the latest and most important are the Rideal-Walker and the Chick-Martin, or Lister Institute method. He compares these two methods as follows: The Rideal-Walker or drop method is one which has given an enormous impetus to the standardization of disinfectants, and it is relatively simple to carry out—a very desirable condition. With the emulsified disinfectants it works well, but with disinfectants like mercuric chlorid, which act comparatively slowly, it gives too low a value according to Chick and Martin. It is lacking in that in its original form it does not introduce organic matter into the test, a matter of considerable importance. This, however, may be remedied by the addition of feces, or perhaps better still of gelatin and starch. In some instances the use of a 1 per cent. solution which has stood for 24 hours, for making the test dilutions is desirable. On the other hand, the Chick-Martin, or Lister-Institute, method is applicable apparently to all classes of disinfectants, and has the advantage that but a single variant (that of concentration of disinfectant) is present, and not two variants—concentration and time—as in the Rideal-Walker or drop method. The method, however, is not nearly so simple to carry out as the Rideal-Walker one. The introduction of organic matter in the form of feces marks a step in the right direction, but further work alone can prove whether this is the best material to employ. Finally, he briefly describes Schryver and Lessing's physico-chemical method for comparing the antiseptic value of disinfectants, which was published a few months ago.

2. **X-Ray Carcinoma.**—Rowntree says that probably there are two essential conditions for the formation of a squamous-

cell carcinoma: (1) The presence of a mass of epithelial cells which are capable of multiplication, and (2) a surrounding area of connective tissue in such a special condition as to render it vulnerable to epithelial invasion. With regard to the second condition, he has already shown that the connective tissues in advanced *x*-ray dermatitis are in almost precisely the same condition as that shown last year by Dr. V. Bonney invariably to obtain in precancerous conditions. With regard to the first condition, it is a feature of *x*-ray dermatitis that in certain stages the subepithelial tissue shows the presence of masses of epithelial cells more or less completely detached from the surface epithelium. It is not difficult to imagine that such a mass of cells, lying isolated in a favorable stroma of altered connective tissue, may, as the result of the stimulating effects of constant small doses of the rays it is undoubtedly receiving, be excited to grow, and as there is no longer any normal purpose which this isolated mass of epithelium can fulfil it proliferates abnormally and invades the surrounding parts. In regard to *x*-ray treatment of malignant growths, all observers are agreed that it is only in very superficial conditions that amelioration can be confidently anticipated; and rodent cancer. the only variety in which only good results have been obtained, is the most superficial.

3. **Artificial Respiration.**—In the second Hunterian Lecture, Keith devotes his attention to the period of mechanical expansion and compression of the chest wall (1856-1909). After a brief summary of compression methods employed prior to 1856, Keith discusses the methods of Marshall Hall, Silvester, Pacini and Bain, and Howard, and recounts B. W. Richardson's experiments. He then considers the resuscitation of stillborn children, paying particular attention to the methods of Schroeder, Schücking, Schüller, and to the recommendations of R. L. Bowles.

4. **Leucocytosis of Epidemic Cerebrospinal Meningitis.**—Dow reports his observations into the leucocytosis in 36 out of 55 verified cases admitted into Belvedere Fever Hospital. He divides them into 4 groups: (1) Acute cases, fatal; (2) abortive cases, recoveries; (3) mild cases, recoveries; (4) chronic cases, 21 cases with 3 recoveries. An analysis of these observations under their respective headings and of the tables in which the various blood cells are dealt with leads to the following *conclusions*:

1. Cases of epidemic cerebrospinal meningitis are always accompanied by a leucocytosis, whether the attack is acute, abortive, mild, or chronic.
2. The character of the leucocytoses is practically the same in all instances, both in adults and children, and is the result mainly of an increase in the number of the polymorphonuclear cells.
3. Nevertheless, a lymphocytosis may be occasionally observed in infants and young children.
4. There is a relative decrease of the large mononuclear elements, alike in fatal and non-fatal cases, though less marked in the chronic type.
5. In the first three groups there is sometimes an absolute decrease of the large mononuclear elements and occasionally total absence of these cells. In the chronic group absolute decrease, like relative decrease, is little marked.
6. Eosinophile corpuscles in acute fatal cases are always absent although present in varying degree in all the other groups.

British Medical Journal, London

March 20

10 *Insufficiently Recognized Points in Diagnosis. Sir D. Duckworth.
11 Diagnosis of Fever in Patients from Tropics. P. Manson.
12 Common Mistakes in Ophthalmic Practice. A. C. Roper.
13 Lactic Acid Ferment Preparations for Intestinal Therapy. I. W. Hall and W. A. Smith.
14 *Mining Accidents. J. Robertson.
15 *Simple Method of Estimating Ammonia in the Urine, Suitable for Clinical Purposes. G. C. Mathison.
16 Physiology of Female Genitalia. III. The Correlation of Uterus and Ovaries. W. B. Bell and P. Hick.

10. **Diagnosis of Disease.**—Duckworth thinks that in our depreciation of old medical and surgical books, of the preparations of our pharmacopeias, and in the concentration of our attention on the methods of laboratory experts, we run the risk of crowding out a good deal of soundly acquired and approved experience and of becoming medical scientists rather than expert medical practitioners. He does not depreciate the necessary researches of the laboratory, especially the clinical laboratory, of which there are too few in the medical schools, but, he asks: "What is the meaning of experience in our profession? What is it we call for and fall back on in any grave crisis in our clinical work? Is it not the opinion formed by the man who has seen much of disease, who has watched it and pondered over it, and best conducted his patients through their maladies? Is it in such crises that we instinctively appeal to the last experiences of the laboratory operator?" Duckworth would have us see all things medical with a *mens sana* and a *mens medica*. The best part of our art is still founded in empiricism. In daily practice, in the best interests of his patients, Duckworth is content to be a medical artist rather than a medical scientist, though ever ready to avail himself of the best science that comes with the approval of careful experience. He warns against the prevalent tendency to pay too exclusive attention to the pathologic process in progress, and to neglect the peculiarities of the individual and the conduct of his particular constitution in relation to the particular illness. We are disposed to regard the soil or tissues of the patient as an indifferent medium, akin to the agar of the laboratory, equally ready to react and encourage the development of such processes as may be expected to follow on inoculation. The fallacy of this he illustrates by the case of the transmission of bovine tuberculosis to the human subject. Another point of modern deficiency is that we often fail to try to make a physiognomic diagnosis of our patient, that is to judge promptly, by practice of it, as to the habit of body or diathesis of the individual. Here again he uses tuberculosis for his illustration, and discusses it in relation to the "strumous" and arthritic diatheses. He discusses the so-called nervous diatheses, myxedema and cretinism, localized pain, apparently simple anemia, and the numerous variety of skin diseases. He adds: "If we pay too much heed to the disease and neglect to study the patient, we may miss many indications of early phases of disease. Where a long report has to be made on a person under examination, say for a life insurance policy, it is possible to be so much engrossed in recording answers to questions that we fail to study the individual before us sufficiently, and so miss the fuller appreciation of the particular features of the case. Some of these insurance papers, especially the American ones, are so full of details that they are apt to lead to an inadequate appreciation of the examinee before us, and to occupy too much time."

14. **Mining Accidents.**—Robertson, after describing two cases, discusses the value of oxygen in pit rescue, the effect of "chesting" water on air contained, and the proof of oxygen travel, and deduces the following lessons:

1. In all cases of similar entombments it would be advisable, while sinking a large shaft for rescue purposes, also to sink a large bore hole at the far end of such a position. Had a three-inch bore hole been sunk near the place of entombment of the two men a current of air would have been established and the difficulties we had to contend with avoided.
2. The necessity under such circumstances of taking into account the amount of available air, and the number of men sent into it. If the air is limited, as in this case it was, then the number of men sent down should also be limited, and men not actually working ought to come to the upper seam, all reliefs being kept there, and sent down as required.

He concludes that oxygen is an absolute necessity and a valuable adjunct to all pit plants. The men ought to be trained in its uses, and its properties and uses should form a part of the examination for a manager's certificate.

15. **Estimation of Ammonia in the Urine.**—Mathison details Malfatti's method and finds that its accuracy can be considerably increased by adding 15 grams of powdered neutral potassium oxalate to the urine and shaking for two minutes before titrating. His experience with the method is favorable.

Medical Press and Circular, London

March 17

17 *Hemiplegia Due to Syphilitic Arteritis. G. Milian.
18 Chronic Ulcer of Stomach and Duodenum. A. Thomson.
19 Hydatid Disease of Liver. G. P. Newbolt.
20 State Cure of Leprosy in Norway as it Affects other Countries. A. S. Ashmead.

17. **Hemiplegia of Syphilitic Arteritis.**—Milian says that hemiplegia of syphilitic origin is in most instances due to arterial lesions, and in such case the attack presents distinc-

tive features, consequent on the mode of production of obliterative endarteritis, which does not obstruct the lumen of the vessel all at once, but in a progressive manner. The course of the disease may be roughly divided into three periods: (1) A period of functional disturbance corresponding to invasion of the vessel, during which the patient complains of painful or other manifestations; these, however, have no direct bearing on the terminal symptoms; (2) a meiopragic or paretic stage, corresponding to partial obliteration of the vessel, during which we get in an attenuated, incomplete, intermittent form the terminal symptoms; (3) the paralytic stage, corresponding to total obliteration of the vessel and consequent softening of the brain. In the first period, headache is usually the premonitory symptom, accompanied or followed by dazzling of sight, blurred sight, and other subjective symptoms. There may be impairment of memory, diminished aptitude for work, mental depression, prostration and drowsiness. In the second period, the symptoms become more pronounced, and are directly dependent on the ischemic troubles of the cerebral regions involved. Sensory and motor disturbances may occur—cold and tingling, blunting of the sense of touch, or, on the other hand, hyperesthesia; or tremors, muscular twitching, fugitive weakness, clumsy movements and weak grasp, may precede the hemiplegic manifestations, which may or may not be associated with aphasia. Usually, "fugitive aphasia is to syphilitic arteritis what the shadow is to the body and follows its evolution step by step." In the paralytic period, which obtains in at least 50 per cent. of cases of cerebral syphilis, it may affect three distinct forms: (a) complete from the outset, (b) general but progressive, and (c) successive or by stages, named in the order of their rarity. In the last case the paralysis first shows itself in a limb or segment of a limb —the hand, for instance. On the following day it extends to the face, and later to the lower limb, until the hemiplegia is complete. In short, it is hemiplegia by a succession of monoplegias.

Journal of Obstetrics and Gynecology of the British Empire, London

March

21 Wertheim's Panhysterectomy for Carcinoma of the Cervix. C. Berkeley.
22 *Prematernity Hospital Practice: Thirty Cases of Morbid Pregnancy treated in the Royal Maternity Hospital, Edinburgh. J. W. Ballantyne.
23 *What is the Pelvic Floor? A Criticism, in which the Position of the Urinary Bladder During the Latter Months of Pregnancy and During Labor is Considered. R. H. Paramore.

22. Pre-maternity Hospital Practice.—Ballantyne concludes the article commenced in the last issue. He adds the following conclusions to those advanced by him on previous occasions:

It is very difficult to do full justice to pre-maternity cases in a maternity hospital, with the ordinary staff of that institution. Patients before labor require diet and regimen different from that which they need in the puerperium, and there is a want of elasticity in the management of a maternity hospital which makes it not very easy to cater for and care for the pregnancy patients. The nursing, also, should be slightly different, so as to make it possible for nurses to be allotted to individual cases, and to give medical or surgical, as well as purely obstetric care; as it is, the sudden calls and irregular work in a maternity hospital make it difficult to give this kind of attention. The medical officers, also, are hampered in their efforts to benefit the pregnancy cases by the other demands on their time and strength: for instance, a resident surgeon who has been up twice during the night at an indoor forceps case and an outdoor postpartum hemorrhage, is not in the best condition for making blood films and carrying out the finer methods of uranalysis the next morning. These and other difficulties, Ballantyne asserts, could be got over if his original proposal of a prematernity hospital in a semidetached building could be carried out. Then, and only then, would the full value of prematernity hospital treatment be revealed.

23. The Pelvic Floor.—Paramore concludes his article, begun in the preceding issue, as follows: From a consideration of the position of the bladder, we may conclude that during the latter months of pregnancy it is already in part an abdominal organ, and that its transplantation is completed before the actual mechanism of extrusion of the fetus has commenced. We can not, therefore, accept the idea that the bladder forms part of the pelvic floor; nor can we regard the pelvic floor as being composed of two segments, one pubic, which is pulled upward, and the other sacral, which is pushed downward, during labor. As the child descends, the other pelvic contents pass upward until the fetal mass meets the actual pelvic floor. It is here resistance is experienced, it is here the actual process of extrusion commences; for to gain the outside, the fetus has of necessity to pass through the limiting musculature of the pelvic recess; and it is to this structure, which, with the coccyx and anococcygeal ligament, plays such an essential part in the support of the pelvic viscera and in the preservation of the intra-abdominal pressure, at the same time that it permits the functioning of the passages which pass through it, that the name of "pelvic floor" is definitely to be given.

Glasgow Medical Journal

March

24 Recent Methods of Examination of the Nose and Throat. J. MacIntyre.
25 Hodgkin's Disease. R. B. Ness and J. H. Teacher.
26 Treatment of Hypertrichosis by X-Rays. J. Donald.

Journal of Laryngology, Rhinology and Otology, London

March

27 Suppurative Media Otitis with Mastoid Symptoms, and Infectious Pseudorheumatism of Nasopharyngeal Origin. L. Bar.
28 Modern Treatment of Syphilis, Especially in Regard to the Upper Respiratory Passages. W. A. Lieven.

Annales de Dermatologie et de Syphiligraphie, Paris

February, X, No. 2, pp. 81-142

29 Comparison of Sporotrichoses and Coccal Infections. (Comparaison des sporotrichoses et des infections cocciennes. Sporotrichoses aigues et subaiguës disseminées. Sporotrichomes à évolution phlegmasique.) De Beurmann and Gougerot.
30 Radiotherapy of Epithelial Cancer. (Statistique et reflexions à propos du traitement radiothérapique du cancer épithélial, en particular du cancer épithélial superficiel.) Lenglet and Sourdeau.
31 Epithelioma Consecutive to Lupus Erythematosus. W. Dubreuilh and G. Petges.
32 Lymphangitis and Abscess from Simple Chancre with Autoinoculation. (Trois cas de chancre simple de la verge avec lymphangite abcédée et chancrellisation secondaire des téguments.) P. Gastinel.

Obstétrique, Paris

February, II, N. S., No. 2, pp. 81-176

33 Double Large Intestine in New-Born Infant. P. Bar and M. de Kervilly.
34 Prophylaxis of Infant Mortality in France. (Moyens utilisés en France pour lutter contre la mortalité infantile.) V. Bué.
35 Jaundice in the New-Born. (Ictère du nouveau-né.) M. Leuret. Id. V. Cathala and R. Daunay.

Presse Médicale, Paris

March 6, XVII, No. 19, pp. 161-168

36 Treatment of Cancer by Fulguration. P. Fredet.
37 Drainage of Hepatic Duct. (Drainage du canal hépatique.) P. Sikora.

March 13, No. 21, pp. 177-192

38 *Diagnostic Tuberculin Reaction on the Nasal Mucosa: Rhinoreaction. Lafite-Dupont and Molinier.
39 *Remote Medical Consequences of Contusions of the Kidney. (Suites médicales lointaines des contusions du rein.) J. Simonin and Tanton.
40 Scoliosis after Infantile Paralysis. P. Desfosses.

38. The Nasal Tuberculin Reaction—Rhinoreaction.—Lafite-Dupont and Molinier state that a specific reaction was obtained in 68 out of 73 tuberculous patients tested by applying directly to the mucosa of the nose for ten minutes a small tampon wet with a 1 per cent. solution of tuberculin. The tampon clings to the mucosa, while the patient refrains from breathing hard or coughing. The reaction consists in a localized exudation at the spot preceded by more or less intense congestion of the mucosa. The exudate dries and leaves a small yellowish crust. This reaction becomes apparent in from eighteen to forty-eight hours, but is long in subsiding, sometimes lasting for ten or eleven days, but generally not over a week. The patients with pleurisy gave a positive reaction in 3 out of 11 cases, and all those with pulmonary tuberculosis. The findings of the test seem to be as reliable, they declare, as the ocular and cutaneous tuberculin tests, while the procedure is much simpler and less annoying and, they assert, is absolutely harmless.

39. **Tardy Consequences of Contusion Affecting the Kidney.**—Simonin and Tanton report two rare cases of reduction of secreting power in the kidney. In one case, the kidney was injured by a kick from a horse, and a latent nephritis developed with tendency to formation of stones; in the other case the blow left a cicatrix, palpable two years later, which interfered with the secretion of the organ, but did not seem to impair the general health. The prognosis of these contusions of the kidney depends on the presence or absence of infection. The other kidney does not suffer so long as the effects of the contusion do not include an infectious process. After an accident of the kind, the condition of the injured kidney and of its mate should be investigated from time to time. He certified in the two cases reported that the earning capacity might be estimated as being reduced about 30 per cent., but he qualified his estimate as requiring revision later.

Archiv für Gynaekologie, Berlin

LXXXVII, No. 3, pp. 497-754. Last indexed March 27, p. 1069

41 Etiology of Uterovaginal Prolapse. O. Nebesky.
42 *Etiology and T[illegible] Sterility in Women. E. Runge.
43 Acardia and [illegible] M. Krüger.
44 *Automatic Movements of Uterus and Their Importance for the Pathology and Treatment of Uterine Infections. (Experimentelle Beiträge zur Kenntniss der automatischen Bewegungen des Uterus und deren Bedeutung für die Pathologie und Therapie der uterinen Infektionskrankheiten, insbesondere der Gonorrhoe.) C. Schindler.
45 Chronic Metritis. C. Hueter.
46 *Placental [illegible] W. Weichardt.
47 Ovarian [illegible] [illegible]eburt ein?) F.
48 *Duration [illegible]
Schatz.

42. **Etiology and Treatment of Sterility in Women.**—In examining for the cause of the sterility in 66 cases, Runge found infantile conditions in cervix or uterus in some and in others the vagina was shallow and gaping so that fluids ran out at once and nothing was retained. Examination of 17 controls, married women who had borne children, showed retention of spermatozoa in the genital tract, while in 34 of the 66 sterile women, under the same conditions, all the fluids escaped at once and no spermatozoa could be discovered. In treatment he aimed to enlarge the posterior vaginal vault and to render the cervix more readily permeable. By packing the end of the vagina with gauze, supplemented by massage, or by the use of the mercury colpeurynter, the posterior vaginal vault can be hollowed out into a pocket which will retain fluids, or a suitable pessary might accomplish the purpose. Operative measures may be needed for an extremely shallow, conical vagina with torn and gaping meatus. By raising the foot of the bed or the buttocks the vagina can be made to slope downward more and the escape of fluids be prevented. His examination was exceptionally thorough and the system followed demonstrated for the first time the actual conditions regarding the passage of spermatozoa into the uterus when infantile conditions prevail. The details of microscopic findings, etc., are tabulated for comparison.

44. **Automatic Movements of the Uterus.**—Schindler gives an illustrated description of the experimental technic with which he was able to study the behavior of the rabbit uterus in the living animal under various stimuli and also the surviving uterus. The research has shown that the uterus possesses the property of automatic intermittent and regular contraction, in itself, independent of the central nervous system. The adnexa and also the ligament apparatus have likewise their own automatic rhythmic peristalsis. The automatic intermittent waves in the adnexa occur symmetrically and synchronously with the peristalsis of the uterus under normal conditions, but may become irregular during fatigue and in consequence of artificial injury. Besides the wave-like contraction of the longitudinal muscles toward and away from the vagina there are also waves of the circular muscles in the uterus and ligaments and local restricted contractions. Mechanical, chemical and thermic stimuli increase the intensity of the automatic movements, and each uterus has its own peculiar individual excitability, as also the adnexa. Extremely violent movements of the entire sexual apparatus can be induced by various stimuli. The cornua roll up, twist together, stand almost straight up, the adnexa and the broad ligaments waving to and fro like a pendulum and up and down until the effect of the stimulus subsides. The response is much more intense with heat stimuli than with mechanical or chemical. In some of the animals the entire sexual apparatus was set in the most violent motion by an injection of Locke's solution heated to 40 C. (104 F.). This did not occur as the rubber tube was inserted, but only as the warm fluid flowed over the sexual organs. Violent movements were also set up by injection into the cornua of the uterus of solution of silver nitrate or other silver salt. The antiperistalsis of the tubes and ligaments in gravid animals is sometimes so violent that the uterus is drawn up toward the ovaries. He calls these movements "frightful," as they explain the rapidity of ascending infection. They also show that the ordinary therapeutic measures, vaginal douches and rectal enemas, hot air douches and cauterization with chemicals, are all strong stimuli which increase the automatic peristalsis or antiperistalsis of the uterus. If the gonococci have passed the internal os, a single vaginal douche may induce a transient antiperistaltic movement which may decide the patient's fate by carrying the cocci to the adnexa. Bumm has reported a case in which in eleven days after the infection both tubes were palpable as thickened, club-like cords. Schindler saw that the peristalsis alone was able to cause regurgitation of the pus as the uterus was lifted up and swung to and fro by the contracting ligaments. Venous hyperemia has a tendency to reduce the automatic movements of the uterus and its excitability. The practical conclusion from his research is the necessity for keeping the uterus quiet in all inflammations. The entire treatment of gonorrhea should be placed on a new basis. Rest in bed is not enough alone; the peristalsis is unmodified. But in atropin, he says, we have a drug which actually arrests the automatic movements of the sexual apparatus and thus keeps infection from spreading. He uses it in gonorrhea, both in women and men, and has been much impressed by the way in which it hastens the cure. Tabora advocates atropin in treatment of gastric ulcer, from much the same standpoint, aiming to tranquilize the stomach and hold it still. He has injected subcutaneously from 1 to 3 mg. a day for weeks at a time without appreciable by-effects. Schindler shows further that when suction hyperemia is applied it must be kept up from one-half to two hours without pauses to avoid stimulating peristalsis. The period immediately afterward may be seized for local silver nitrate disinfection, as venous hyperemia checks the peristalsis. Suction hyperemia is contraindicated if the infection has extended beyond the cervix.

46. **Etiology of Eclampsia.**—Weichardt relates research which suggests that the symptom-complex of eclampsia is a manifestation of anaphylaxis, hypersusceptibility, induced by antibodies producing this effect.

48. **Duration of Pregnancy.**—Schatz continues from the preceding volume his extensive study of the physiologic waves regulating the duration of pregnancy.

Archiv für Kinderheilkunde, Stuttgart

XLIX, Nos. 5-6, pp. 321-484. Last indexed February 27, p. 740

49 Biologic Relations Between Mother and Child. (Zur Frage der biologischen Beziehung zwischen Mutter und Kind.) C. Stäubli.
50 Mongolism. (Anatomische Studien über den Mongolismus.) P. Hellmann.
51 *Care of Infants in Hospitals. (Zur Säuglingspflege im Krankenhause.) J. Gewin.
52 Congenital Aplasia of Biliary Passages accompanied by Cirrhosis of the Liver. Cured by Operation. (Angeborene Aplasie der Gallenwege verbunden mit Lebercirrhose, durch [illegible] Theodor.
53 Su[illegible] [illegible]reatment in Rachitis. (Neben-[illegible] A. Jovane and C. Pace.

51. **Care of Infants in Hospitals.**—Gewin tells of the conditions and regulations in the Amsterdam Hospital where 286

infants were received in the infant department in about three years. In 54 cases the infants were healthy. He discusses the means of warding off infection, and urges the importance of keeping the healthy infants away from the sick, with particular isolation for all children with severe affections of the air passages. Attendants suffering from colds should be kept away from the infant department. Visits to sick infants should be restricted to the minimum, and every effort made to secure breast milk for them. One child was received at night and the next morning Koplik's sign was apparent. Although it was at once transferred to the contagious ward, measles developed thirteen days later in some of the other infants.

Berliner klinische Wochenschrift

March 8, XLVI, No. 10, pp. 429-476

54 *Surgical Treatment of Tuberculous Affections of Hip Joint. (Operative Entfernung des tuberkulös erkrankten Hüftgelenks.) König.
55 *Brain Surgery. (Hirnchirurgie.) O. Foerster.
56 Some Cases of Surgical Trauma. (Unfallchirurgie.) R. Mühsam.
57 The Antitryptic Index of the Blood in Malignant and Septic Disease. (Untersuchung über den antitryptischen Index des Blutes bei bösartigen Geschwülsten und septischen Erkrankungen.) F. Landois.
58 Serodiagnosis of Syphilis in Practical Surgery. G. Wolfsohn.
59 Technic for Access to Hypophysis. (Zur Freilegung der Hypophysis.) L. Loewe.
60 A Precision Pipette for the Blood Count. (Zur Blutkörperchenzählung.) H. Hirschfeld.
61 Puncture Treatment of Gonorrheal Epididymitis. (Die neueren Behandlungsmethoden der Epididymitis gonorrhoica unter Mitteilung eigener Versuche mit der Punktionsbehandlung.) Ernst.

54. **Operative Treatment of Tuberculous Hip Joint.**—König has been investigating the present condition of 568 former patients with a tuberculous hip-joint affection. All but 294 required operative measures, and 202 of this group of 294 nonoperative cases have been re-investigated; 55 of the patients had died of intercurrent affections and 114 were cured without necessity for aid in walking; in 33 the joint had regained normal function, and 90 had a more or less movable joint. Besides these 114 cases with excellent results, 35 patients still required a cane or crutch and in 3 cases the condition was bad; in 13 there is still a fistula. In the group of 274 resections no news could be obtained of 60 patients; of the others, 66 were cured, and in 16 of these cases the result was extremely fine and the patients were able to dance and take long walks. Canes or crutches still have to be used by 43 patients, and 35 still have fistula. As only the severer cases are given operative treatment, these results he regards as extremely favorable. He has done resection on the hip joint in 400 cases, and remarks that his technic seems to be overlooked by other surgeons. The principle is to remove every trace of diseased tissue. The operation is much more complete than what used to be called "resection," but he retains the name as the incision and part of the operation is the same as in the old technic.

55. **Brain Surgery.**—Foerster's first patient was a man of 44 with intradural hematoma from a fall down a flight of stone steps. Aphasia developed the next day and monoplegia and cortical epilepsy followed by the sixth day. Immediate improvement followed trephining and evacuation of the hematoma six days after the fall. The dura was not sutured and part of the bone flap was removed. In less than three weeks normal conditions were entirely restored. In the second case there was a "depression fracture" of the left parietal bone. Trephining cured the symptoms except the oculomotor paralysis. The patient was a boy of 6 and the unconsciousness lasted for sixteen days after the trauma. In discussing these and similar cases he remarks that the most important symptom in the indications, so far as the brain is involved, are the contractures from irritation or Jacksonian epilepsy. He advocates expectant treatment in case of aphasia until these develop, but as soon as the symptoms of irritation become apparent he would operate without a moment's delay. He adds, however, that the symptoms of irritation of the cortex, especially the epileptic manifestations, supply the indication for operative measures, while the focal symptoms are less important from this standpoint. In a third case the Jacksonian epilepsy in the right arm was due to a tubercle in the cortex; this patient also recovered after trephining.

Centralblatt für die Grenzgebiete der Med. und Chir., Jena

XII, No. 3, pp. 81-128. Last indexed March 6, p. 805

62 *Ascarides and Their Importance from the Surgical Standpoint. (Askariden und ihre Bedeutung für die Chirurgie.) L. Müller. Commenced in No. 1.

62. **Ascarides and Their Importance from the Surgical Standpoint.**—Müller summarizes the main points of 155 articles in international literature each reporting one or more cases of serious, almost invariably fatal, trouble from the presence of ascarides. The large proportion of adults in the series is remarkable. The evidence shows that the ascaris is able to perforate the intestinal wall, especially when favored by tuberculous, typhoid, or other ulcerative lesions. The possibility of disturbance from ascarides in the biliary apparatus also should be borne in mind, particularly when children or adults known to have worms present chronic jaundice, convulsions, fever, violent pain in the liver region or symptoms of an abscess in the liver. The tendency of these worms to work their way into minute openings is shown by the way in which they are found in swallowed beads or loops of wire. A febrile temperature evidently tends to render them more actively migratory, as also retching and vomiting. In over two dozen recorded cases ascarides were responsible for appendicitis. The fatal cases in the biliary apparatus were almost all in adults. Davaine collected 47 cases of tumors in the abdomen, the result of perforation of the intestinal wall by the worms. The list is a long one in which death was caused by suffocation from ascarides getting into the upper air passages. In only a few instances was the patient saved by discovery and removal of the worm. The diagnosis is difficult, although the sudden onset of the suffocation suggests a foreign body. It is important to examine the throat with great care but even tracheotomy does not always reveal the disturbing cause. The worms have been found in the lungs, pleura, peritoneum and appendix, besides the main digestive tract, but only one case seems to have been reported of ascarides in the uterus and one in the Fallopian tube. Cases are on record of the passage of the worms through the Eustachian tube and lachrymal canal, generally after a febrile affection. The ascarides in tuberculous, typhoid and other ulcerative processes are perilous foreign bodies, to say the least, the rough edges of their lips being liable to erode the ulcerating surfaces, and their tendency to penetrate into narrow openings being liable to cause enlargement of a perforation anywhere and prevent its healing.

Correspondenz-Blatt für Schweizer Aerzte, Basle

March 1, XXXIX, No. 5, pp. 145-184

63 Importance [illegible] philis. (Bedeutung der modernen [illegible] onders der Serum-Diagnostik für [illegible] Jadassohn.
64 *Pathology and Treatment of Scarlet Fever. (Scharlach.) T. Zangger.

64. **Scarlet Fever.**—Zangger writes from personal experience besides his clinical observation; at the age of 41, four years ago, he noticed one morning that he had a slight sore throat with a trace of fever, and in the afternoon discovered an exanthem on the chest of unmistakable scarlatinal aspect. There was no known source of infection in his environment unless he had acquired the infection at a meeting of a medical society two days before. During the morning of the day his eruption developed he had made professional calls on children in six families and dined at home with his own five children at noon, none of whom had had scarlet fever, but none of these children developed scarlet fever in consequence. This with his clinical experience reaffirms that scarlet fever is not communicable in the early stages, but is transmitted mainly by the secretions from the mouth, nose and ears. The exfoliated epithelium after the fourth or fifth week does not seem able to carry contagion. Initial vomiting is an aid for the diagnosis when such occurs. In one case in his experience a toxic erythema misled him for several days until desquamation set in. In another case the scarlatina recurred eight days

after the eruption had paled. As the virus of the disease seems to be specially located in the nose and throat he advocates local antisepsis as of extreme importance for attenuating the severity of the infection and warding off complications. For this he has found a 1.5 or 3 per cent. aqueous solution of hydrogen dioxid the most effectual and harmless. Since he has instituted this hydrogen dioxid local antisepsis, spraying the throat and nose vigorously, himself, twice a day, he has not witnessed the development of any complications such as albuminuria, swelling of glands, otitis, etc. He used this spray on himself for four days and experienced great relief from it each time; the fever subsided by the third day and he felt quite well with no further disturbances, but refrained from resuming his practice until the thirty-fifth day. The room he had occupied and the adjoining bathroom were disinfected by the authorities, and no further case of scarlet fever developed. He remarks that the official disinfection is frequently rendered futile by the fact that although the patient has confined himself to one room during his illness, yet as convalescence comes on he is apt to go into other rooms and thus infect the whole house. The statistics at Zurich, where Zangger resides, show an average of 436 cases of scarlet fever each year; 12.1 per cent. occur after the age of 15, and 7.5 per cent. after 20. In 15 cases in the last few years the patients were over 40 and in 2 others over 50. The mortality is highest in children under 2 and gradually declines with increasing age. It averaged only 1.23 per cent. in the last 3,690 cases.

Deutsche medizinische Wochenschrift, Berlin

March 11, XXXV, No. 10, pp. 425-464

65 A Year of Gynecologic Disinfection without Water and Soap. (Ein Jahr gynäkologischer Desinfektion ohne Wasser und Seife.) O. v. Herff.
66 Structure of Upper Funnel of Vena Cava and its Relation to Absolute Irregularity of the Pulse. (Struktur des oberen Cavatrichters und seine Beziehungen zum Pulsus irregularis perpetuus.) Koch.
67 *Simplification of Serodiagnosis of Syphilis. (Zur technischen Vervollkommnung des serologischen Luesnachweises.) J. Bauer.
68 Technic of Roentgen Moving Pictures. F. M. Groedel.
69 *Improved Method of Showing up the Tubercle Bacilli. (Neue Methode des Tuberkelbazillennachweises.) L. Lange and P. Nitsche.
70 *Quantitative Cutaneous Tuberculin Reaction and Clinical Importance of Strength of Tuberculin. (Klinische Bedeutung des Tuberkulintiters.) V. Ellermann and A. Erlandsen.
71 *Chronic Idiopathic Internal Hydrocephalus Cured by Drainage of the Ventricle. Halben.
72 Irrigation Endoscopy in Chronic Urethritis. H. Lohnstein.

67. Improved Technic of Serodiagnosis of Syphilis.—Bauer expatiates on the necessity for having always fresh guinea-pig serum for the test, but states that the fresh serum can be frozen in small amounts and kept frozen, one of the pieces being used for each test. When frozen it retains all its properties as when fresh. He adds that the combination of artificial and natural amboceptors is not only superfluous, but is liable to transform a positive into a negative reaction from the excess of amboceptor. That naturally in human serum is sufficient, when sheep blood is used.

69. Improved Technic for Detection of Tubercle Bacilli.—Lange and Nitsche utilize the property of tubercle bacilli to be carried up to the surface of water by the rising droplets of a hydrocarbon element in the fluid. Other bacilli are not thus carried up by the rising hydrocarbon droplets and are found in the lower depths of the fluid while the tubercle bacilli collect almost exclusively at the surface. About 5 c.c. of sputum is mixed with 50 c.c. of one-tenth normal potassium hydroxid and left until completely blended (homogeneized), shaking frequently. Then 50 c.c. water is added and the whole well shaken. The hydrocarbon is then added; ligroin is the hydrocarbon selected as its droplets are slower in rising and thus give the bacilli time to cling to them. They use 2 c.c. of a ligroin with a melting point between 90 and 120 C. The whole is then vigorously shaken and heated in the water bath to 60 or 65 C. until the hydrocarbon has separated. Loops are then taken from the junction of the supernatant ligroin and the fluid below and transferred to a warmed object-glass. As the ligroin evaporates so quickly, several loopfuls can be deposited on top of each other.

70. Clinical Importance of Tuberculin Titration.—Ellermann and Erlandsen obtain the cutaneous tuberculin reaction by a titration method, inoculating the thigh in a row with a series of standard solutions of the tuberculin of varying strengths. By this means they eliminate individuals with merely latent tuberculosis as only those with active tuberculous processes react to the weaker solutions.

71. Chronic Idiopathic Internal Hydrocephalus Cured by Drainage of the Ventricle.—Halben states that all the main symptoms have retrogressed since the operation done by Payr last October. The patient was a girl of 16; Payr introduced into the right lateral ventricle a piece of an artery about 2 mm. in diameter taken from a calf. The artery had been hardened in formalin and dipped in paraffin and was fastened to allow communication between the ventricle and the epidural and subdural space at the top of the head. The headaches, choked disc, nystagmus, abducent paralysis, and tremor all vanished at once or by the end of a month, and vision, which had been 1/2 on each side, was 4/5 and 5/5 when the patient was discharged two weeks after the operation. Slight headache at times is the only trace left of the former trouble except that the papilla looks a little dirty. The patient had always suffered more or less from headache, but the other symptoms first developed about five months before the operation.

Medizinische Klinik, Berlin

March 7, V, No. 10, pp. 343-380

73 Bronchial Asthma. R. von den Velden.
74 Peripheral Neuritis with Infectious Diseases. (Periphere Neuritiden bei [illegible] [illegible]ensteiner.
75 Pigmentation of [illegible] von Mundschleimhautpigr[illegible]
76 Emotional Shocks. (Affektstörungen.) A. Kutzinski.
77 Blood Pressure in Rarefied Air. (Verhalten des maximalen und minimalen Blutdruckes beim Menschen in verdünnter Luft.) R. Staehelin.

Münchener medizinische Wochenschrift

March 9, LVI, No. 10, pp. 489-544

78 *Digestive Disturbances of Mental Origin. (Verdauungsstörungen ur[illegible] [illegible]einer.
79 Mechanism of [illegible] Straub.
80 *Simplified Tec[illegible] Syphilis. (Eine für die Pra[illegible] Methode der Serodiagnos[illegible]. Noguchi.
81 *Salt and [illegible] und Urämie.) A. Ceconi.
82 *Spinal Anesthesia with Novocain in Gynecology. (Lumbalanästhesie.) H. Sieber.
83 *Physiologic and Anatomic Research on Spinal Anesthesia, and its Clinical Value. (Lumbalanästhesie.) H. Klose and H. Vogt.
84 Streptococci in Genital Secretions during Pregnancy and the Puerperium. [illegible] den Genitalsekreten von Schwangeren [illegible] Fromme.
85 Treatment of [illegible]. (Typhusbazillenträger.) Liefmann.
86 Injury of Eyes from Lightning. (Augenverletzungen durch Blitzschlag.) R. Hessberg.
87 *Artificial Hail Stimulation of Skin: "Grandination" (Neues Verfahren zur Erzeugung von Hautreizen.) E. Plate.
88 Puerperal Fever. Deipser.
89 *Salt-Poor Diet as a Systematic Method of Treatment. (Die kochsalzarme Diät als Heilmittel.) F. Mendel. Commenced in No. 9.
90 Frequency of Various Fatal Diseases at Different Ages. (Verteilung der tödlichen Krankheiten auf die Lebensalter.) F. von den Velden.

78. Digestive Disturbances of Mental Origin.—Fleiner urges that greater attention should be paid to the mental origin of a number of disturbances in the digestive sphere. He insists that there is no such thing as primary nervous dyspepsia; the trouble thus called is only functional disturbance in the stomach or intestines, or both, of psychogenic origin. These disturbances may occur alone or may complicate existing affections of the organs. He says that it is an immense advantage to say "psychic" or "of mental origin" instead of "nervous," as the correct diagnosis suggests the proper treatment. Until the patient has acquired the necessary degree of confidence in the physician it is well to be reticent in regard to the etiologic diagnosis, merely speaking of functional dyspepsia, then later discussing the functional psychoneurosis causing the trouble. The prospects for treatment are much more encouraging from this standpoint. He states that one-third of all the dyspeptic patients in his hospital practice last year were of this class. The frequency of the generally misunderstood trouble is sufficient reason for making an earnest study of this form of psychoneuroses and their proper treatment, which can be only along the lines of psychotherapy. He commends Dubois' recent works on the subject as summarizing most ably the principles of psychic treatment of psychoneuroses. The diagnosis is easy, and much time is gained by dispensing with functional tests and attempts to disinfect the digestive tract or operate on it or on a wandering kidney. All these measures are useless, and the time thus gained may be spent in sympathetic encouragement of the patient. The anxious restrictions of the diet that previously prevailed can be discarded, and the patient gains confidence as he finds he thrives on a wholesome family diet.

80. Discussed editorially in The Journal, April 3, page 1113, and April 10, page 1186.

81. **Salt and Uremia.**—Ceconi reviews the research of others on the elimination of chlorids, especially of salt, in its bearing on the origin of uremia. He then relates personal experimental research which confirms the assumption that a tendency to impermeability on the part of the kidneys entails a retention of sodium chlorid more than of any of the other salts. This in turn upsets the osmotic balance in the circulation and interstitial fluids and also in the tissues, causing disturbances of various kinds, which cooperate in producing the clinical picture of uremic poisoning. The electrolytes then present in the juices and tissues are not sufficient to neutralize this excess of salt. This theory of the pathogenesis of uremia is based on the fact of retention of salt and also on the recent theories that the mechanism which insures the maintenance of the osmotic balance depends on the physical properties of the ions involved and especially on the quality and quantity of their electric charges.

82. **Spinal Anesthesia.**—Sieber remarks that the importance of the spinal method of anesthesia is generally accepted now and the only question is the choice of the anesthetic. He relates experiences with novocain used in 200 cases, including all the vaginal operations, and all the laparotomies on feeble elderly women with pathologic heart or kidneys. Under other conditions he prefers the ordinary inhalation technic as more agreeable and giving a better prognosis. He has found that the tendency to retching and vomiting during the operation is much reduced by giving a cup of tea with a teaspoonful of brandy one hour before the spinal anesthesia. The amount of the anesthetic seems to influence the tendency to retching less than the kind of operation.

83. Practically the same article was reviewed last week in these columns, page 1217, abstract 116.

87. **Principle of Sand Blast Applied for Stimulation of the Skin.**—Plate applies the term "grandination" to his method, from the word, *grando*, hail. He uses fine seeds for the hail, chiefly on account of their elasticity, and gives an illustrated description of the simple apparatus devised for the purpose. No other measure known, he declares, induces such intense arterial hyperemia as the impact of the seeds, and they also exert a kind of massage, as the muscles contract under the influence of the pelting.

89. **A Salt-Poor Diet as a Therapeutic Measure.**—Mendel describes a few striking cases to show the remarkable benefits that may be derived from reducing the intake of salt in disturbances in the circulation. He also reports one case in which an abnormally large ingestion of salt led to disturbance in the heart action with extreme edema. The causal importance of the salt in this case was confirmed by the immediate improvement when the patient was restricted to an exclusive milk diet. The edema vanished in three days. The pulse dropped to 100, the liver subsided to normal size in a week, when ordinary diet was resumed, merely restricting the amount of salt; in another week not a trace of disturbance in the circulation could be detected. He draws conclusions from recent experimental research which throw light on a number of different affections. The effect of hydremic plethora from salt accumulating with its accompanying water is shown to be peculiarly striking in various skin and serosa affections, especially in inflammation acompanied by exudation of serum through the altered vessels. An inflammation which in the control animals caused no tumor or exudation to speak of became very much swollen, with profuse exudation, when there was accumulation of salt and its accompanying water. Transferring these experimentally learned facts to clinical pathology, he found that retention of salt (and water) not only alters the clinical picture of inflammation, but has a more or less injurious influence on their course. If the serous membranes are involved in the inflammation there is greatly increased effusion. The effect of the hydremic plethora is seen in pleurisy and in synovitis in a joint as the effusion rapidly increases in amount. These accumulations of fluid compress the lymphatics and capillaries, and thus have an unfavorable influence on and prolong the course of the inflammation, besides the damage from compression of the neighboring organs. Compression of the lymphatics also interferes with reabsorption. Great benefit consequently follows the reduction of the hydremic plethora. The effusion is reabsorbed more rapidly the less salt is taken with the food. The reduced proportion of salt leads to a powerful osmotic current from the tissues out into the blood and increases the diuresis which further reduces the pressure in the interstices of the tissues, and this in turn favors reabsorption of the morbid effusion. The course can be thus modified of a burn, of eczema, of ascites with cirrhosis of the liver, of pleurisy, gonorrheal epididymitis and joint affections, venous thrombosis with stasis edema and arteriosclerosis—he relates instances of all these in which a remarkable turn for the better followed reduction of salt in the diet. He shows that even normal amounts of salt in the diet increase the fluid in the body 1.5 to 3 liters, and that an excessive intake of salt may entail retention of salt and water even in the healthy individuals with sound kidneys. The healthy organism tolerates this excessive amount of fluid without disturbance, but there is transudation and exudation whenever the vessels are damaged from any cause. In parenchymatous nephritis the hydremic plethora causes edema. In heart affections it increases the resistance in the circulation, favoring thereby failure of the compensation of the heart and promoting stasis edema. All these unfavorable influences can be prevented or at least diminished by reducing the intake of salt. It may pave the way for digitalis to work effectually. He cites a number of cases from his own experience to show the marked antiphlogistic and absorbing action of a salt-poor diet. It is not necessary to exclude all salt, but merely to reduce the amount to 2 or 4 gm. of salt (30 to 60 grains), that is, about one-eighth of the amount usually considered necessary in the diet for twenty-four hours. The easiest way to introduce the salt-poor régime is to restrict the diet exclusively to milk for a few days. He believes that the therapeutic salt-poor diet will prove effectual in other conditions.

Therapeutische Monatshefte, Berlin

March, XXIII, No. 3, pp. 129-184

91 *Septic Constriction of Uterus. P. Zweifel.
92 *Iodin in [illegible] irkung, Jodismus und Arterioskleros[illegible] Stein.
93 Puerperal [illegible] Luxation of the Ilium. E. Ebstein.
94 *Transmission of Vaccine Infection. (Vakzineübertragung und deren Verhütung.) L. F. Meyer.
95 The More Recent Methods of Conservative Treatment in Gynecology ([illegible] thren.) E. Kaufmann.
96 Influenza Ot[illegible] in No. 2.
97 *Dosage of Formaldehyd. P. Fleissig. Commenced in No. 2.
98 Removal of Foreign Bodies in Nose. The Spoon Sound. (Fremdkörper der Nasenhöhle und ihre Entfernung mittels der Löffelsonde.) F. Müller.

91. **Tetanus of the Uterus.**—The condition of general tonic contraction known as tetanus of the uterus is generally ascribed to too early use of ergot, repeated examinations or rough manipulations, but Zweifel presents evidence to prove that it is due to local infection and should more appropriately be called septic constriction of the uterus. The putrid odor of the secretions in all the cases on record confirms the assumption of infection. In all such cases premature rupture of the membranes occurred, without labor, and a long interval elapsed before delivery was completed. This allowed infection of the ovum and putrefaction of its contents, under the influence of which the tetanus results. In a personal case de-

scribed no ergot had been given and very little examination done, but three days had elapsed between the rupture of the membranes and protrusion of the arm of the fetus, with intense general tonic contraction of the uterus. Version was then attempted but failed, and when the child was extracted seven hours later by perforation, it was found in advanced maceration. The delay of three days after rupture of the membranes permitted ascending infection with resulting septic constriction of the uterus. It did not yield even when the patient was kept under the influence of an anesthetic for three hours. The uterus was consequently removed by the abdominal route after attempts to remove it through the vagina had failed. The woman had already borne four children and the pelvis was normal, but the malpresentation at this last childbirth, the early escape of the amniotic fluid and absence of labor contractions, cooperated in the tragic outcome. The woman was not brought to the hospital until 72 hours after the rupture of the membranes. The attending physician, Zweifel, says, should have used the inflatable bag to hasten delivery after the escape of the amniotic fluid, as unless this is speedily followed by delivery of the fetus, conditions invite infection. He advises disinfection of the vagina after too early rupture of the membranes, with a 5 to 1,000 solution of lactic acid in physiologic salt solution (equal parts lactic acid and distilled water, adding 10 c.c. of this mixture to a liter of water with one teaspoonful of salt).

92. Importance of Iodin in Incipient Arteriosclerosis.—Erlenmeyer and Stein emphasize the fact that the action of iodin in the organism is essentially an action of ions. The iodin ion is able to aid in the destruction of degenerated tissue and to promote the restitution of cells still alive but incapable or normal functioning. These properties of the iodin ion explain the durable effect of an energetic course of treatment with iodids. If the effect were due solely to the chemical action of the iodin salt, the previous condition would recur when the last molecule of iodin had left the organism. The [illegible]ents and evidence presented confirm the necessity for progressively increasing the dosage of the iodin. The iodin ion exerts a stimulating action to which the organism soon becomes accustomed and ceases to respond unless the amount introduced is progressively increased. When this stimulation has been kept up long enough to start the cells well on the way to complete restitution, they can travel the rest of the way unassisted. In arteriosclerosis, a small uniform dosage does no good whatever, but large and progressively increasing doses may accomplish wonders in the incipient cases. Patients long taking about 7.5 grains of potassium iodid two or three times a day without the slightest benefit, soon show progressive improvement when 60 or 75 grains of iodin salts are taken during the day. Severe symptoms of iodism are observed only when the iodin salt is split up by the acid in the stomach. The large doses cause no serious disturbance if the diet is regulated to avoid acids. The acid in the stomach must be neutralized with an alkali, especially at first. For twenty-four hours before commencing the course of iodin treatment the stomach should be rendered alkaline by the use of alkaline mineral waters, and sodium bicarbonate should always be incorporated with the iodids, preferably in the proportion of one part of the bicarbonate to two parts iodid. Much larger amounts of ions are realized when two or three iodids are combined in a single dose, and equal parts of sodium and potassium iodid have been found most convenient and effectual, always combined with one-half the amount of sodium bicarbonate. Wine and fruit should be avoided while taking iodids unless the ferments in the fruit have been destroyed by cooking. Milk should also be avoided on account of the liability to lactic acid formation. This assumption that the presence of acid is the *sine qua non* for the liberation of free iodin, and consequent iodism, is sustained by the benefit of treatment based on this "acid hypothesis" and the failure and threatening symptoms when it is disregarded. As iodin under all circumstances is a poison for the protoplasm, iodism is an unavoidable by-effect of the action of the iodin ions, but the severe manifestations are easily prevented by observing the above precautions. Iodism should not be feared and measures to annul or suppress it entirely are superfluous. Durable benefit depends on a prolonged course of treatment with progressively increasing doses.

94. Prevention of Transmission of Vaccine.—Meyer insists on the necessity for refraining from vaccination when there is a child with eczema in the environment. He further insists on the importance of protection of the vaccinated area with a cover of cotton wrapped in medicated gauze and fastened to the surrounding skin with adhesive plaster. This protects against contamination and against infection of others while allowing free ventilation of the spot. He adds that a dressing of this kind should be made compulsory at every vaccination.

97. Dosage of Formaldehyd.—Fleissig devotes about six pages to a tabulation of forty-three cases of various affections in which formaldehyd in some form was applied to the surface of the lesion or injected into some organ or vein. He also reviews from the literature the opinions of various authors on the action of this chemical in its different forms, and shows the misconceptions liable to arise from the different modes of calculating the strength and urges the adoptioi. of some uniform formula.

Virchows Archiv, Berlin

March, CXCV, No. 3, pp. 369-563

98 Histologic Study of Causes and Course of Transformation of Bone in Osteoplastic Carcinoma. (Knochenumbau im Karzinom.) G. Axhausen.
99 Regeneration in the Liver. (Regeneration in der Leber.) A. Carraro.
100 Inflammatory Proliferatio [illegible] talia. (Ueber entzündliche [illegible] im weiblichen Genitalgebie [illegible] urzel des Mesocolon ausgede [illegible])arm-epithels.) R. Meyer.
101 Glioma in the Nose. (Nasengliome.) L. Süssenguth.
102 The Ganglion Cells in Sunstroke. (Die Ganglienzelle bei der Insolation.) A. Amato.
103 Regeneration of Severed Pancreatic Ducts. (Ueber die anatomische und functionelle Wiederherstellung der unterbundenen und durchschnittenen Pankreasausführungsgänge.) A. Visentini.

Wiener klinische Wochenschrift, Vienna

March 11, XXII, No. 10, pp. 327-362

104 Tuberculosis in Children. (Tuberkulose des Kindersalters.) H. Albrecht.
105 Influenza Conjunctivitis. R. Possek.
106 Production of Antigen for Serodiagnosis of Syphilis. (Zur Frage der Herstellung von syphilitischen Antigenen.) N. A. Tschernogubow.
107 Simplification of Serodiagnosis of Syphilis. (Vereinfachung der Komplementbindungsreaktion bei Syphilis.) H. Hecht.
108 Treatment of Tuberculosis. A. Krokiewicz. Commenced in No. 9.

Zeitschrift für Geburtshülfe und Gynäkologie, Stuttgart

LXIV, No. 1, pp. 1-223. Last indexed February 27, p. 744

109 *Secondary Carcinoma in the Uterus. H. Offergeld.
110 Imperforate Vagina. (Zur Klinik der Gynatresien.) E. Gross.
111 *Experiences with Pubiotomy. (700 Hebosteotomien.) A. Schläfli.
112 The Opsonic Index in Pregnancy and the Puerperium. (Ueber die klinische Verwendung der Opsonine bei Schwangeren und Wöchnerinnen.) H. Guggisberg.

109. Secondary Carcinoma of the Uterus.—Offergeld has been able to find 22 cases on record of a secondary carcinoma in the uterus, and he calls attention to the fact that in 3 of these cases the woman was pregnant. This suggests that the change in the metabolism in the gravid uterus upsets the balance which seems to ward off metastasis from cancer elsewhere. The secondary carcinoma develops with unusual rapidity in the pregnant uterus, while otherwise it grows very slowly.

111. Seven Hundred Pubiotomies.—Schläfli reports 8 cases from von Herff's clinic at Basle and reviews 510 cases from the literature with mention of nearly 200 more of which the details are not so completely given. The mortality for 664 cases was 32 with an operative mortality of 4.82 per cent. for the mother and of 9.18 for the children. The bladder was injured in 12.35 per cent. of 510 cases, and there was a febrile puerperium in 31.76 per cent. and permanent incontinence of urine in 5 women, that is, in 4.17 per cent. of 120 women re-examined later. He regards pubiotomy solely as an emergency operation when the disproportion between the pelvis and the child's head is found to be insurmountable.

Zentralblatt für Chirurgie, Leipsic

March 6, XXXVI, No 10, pp 329 368

113 *Plastic Operation on Abdominal Wall (Ueber Muskelplastik bei Defekten der Bauchpresse) I. K Spischarny
114 *Improved Technic for Suturing the Bladder (Blasennaht mit tiefen Knopf- und oberflachlichen Schnurnahten) V Hacker

113. **Plastic Operations on the Muscles for Defects in Abdominal Wall.**—Spischarny remedies the defect by means of the oblique muscle taken from the side wall of the chest and the part below the costal arch, as he describes in detail, with reports of five cases in which this technic was successfully applied. The defects resulted from the removal of a large tumor in the rectus muscle, actinomycosis in the abdominal wall, or excessively large hernia.

114 **Suture of the Bladder.**—Hacker has found that a combination of button sutures in the lower tier and a row of small tobacco bag sutures above forms a particularly strong method of closing the bladder wall. He illustrates the method as applied to a transverse incision.

Zentralblatt fur Gynakologie, Leipsic

March 6, XXXIII, No 10, pp. 329-376

115 *Suture of Recent Laceration of Perineum. (Zur Naht des frischen Dammrisses) W. Sigwart
116 *Importance in Obstetrics and Gynecology of Momburg's Method of Expelling Blood from Lower Half of Body. (Bedeutung der kunstlichen Blutleere der unteren Korperhalfte fur die Geburtshilfe und Gynakologie) O Hoehne
117 Four Cases of Resection of Ovaries according to Menge's Technic. (Zur Ovarialresection n Menge) P Zacharias
118 Treatment of Placenta Prævia V. Zimmermann

115. **Suture of Lacerated Perineum.**—Sigwart states that primary healing was the rule in all but 2 out of 125 cases of lacerated perineum in which the suture was completed with the Michel clips. They seem to be peculiarly adapted for lacerations in the perineum as they leave no stitch holes to become infected.

116. **Expulsion of the Blood from the Lower Half of the Body in Obstetrics and Gynecology.**—Hoehne has been experimenting with the Momburg technic and states that it has the advantage over isolated compression of the abdominal aorta in that the ovarian artery is compressed as well. The conditions are peculiarly favorable for it in obstetric cases, as the intestines then are crowded into the upper part of the abdomen Various operations in the abdomen and even incision of the exposed aorta caused no bleeding in the rabbits thus belted in The method was applied in two cases in the clinic in which hemorrhage persisted from atony of the uterus after delivery. The anemia of the organ thus induced stimulated it to energetic contraction at once, while the circulation in the most vital organs was strikingly improved as shown by the improvement in the radial pulse, the quieter breathing and the subsidence of the anemia in the brain. He emphasizes the absolute harmlessness of the procedure and the certain success of the hemostasis The communication issues from Pfannenstiel's clinic at Kiel; in one of the two cases reported violent pains were felt afterward in the legs for three hours which then subsided without a trace He does not know whether to ascribe these pains to the belting in or to the preceding winding of the legs to expel the blood, but in any event he comments that it is wise to follow Momburg's directions, that is, not to draw the belt too tight, but merely enough to arrest the pulse in the femoral artery. This is the first by effect that can possibly be ascribed to the measure that has been reported. The intestines and the ureters do not seem to suffer from the compression, but the question of possible injury to the wall of the inferior vena cava and eventual danger of thrombosis requires study. No tendency of the kind was observed in the rabbits The method seems to promise a brilliant future in prevention of hemorrhage with placenta prævia, as it dispenses with all intragenital measures. It may even do away with the necessity for manual separation of the placenta, he adds, as the more energetic contractions of the anemic uterus may render it unnecessary. He adds in conclusion that it is possible that this method may also aid in starting an artificial abortion by the effect on the uterus of thus cutting off its blood supply.

Policlinico, Rome

March 7, XVI, Practical Section, No 10. pp 293-324

119 Positive Complement Fixation Test in Malta Fever (La deviazione del complemento nella febbre di Malta) G. Pulvirenti

February, Medical Section, No 2, pp 49 96

120 *Lipemia and Diabetic Lipoidemia C. Frugoni and G. Marchetti

March, No 3, pp 97 144

121 Familial External Ophthalmoplegia (Oftalmoplegia esterna cronica familiare) A Nazari and P. Chiarini
122 Experimental Lesions in the Liver of Splenic Origin (Lesioni epatiche sperimentali di origine splenica) G. Breccia
123 *Case of Hydatid Cyst in the Heart. (Caso di echinococco del cuore) B Baecchi
124 *Sphygmodynamometer (Sfigmodinamometro) S Salaghi

February, Surgical Section, No 2, pp 49-96

125 Traumatic Separation of the Epiphyses (Sui distacchi traumatici epifisari) A Pennisi
126 Independence of the Liver Territory. (Sull'indipendenza dei territori epatici) S Gussio

120. **Lipemia and Diabetic Lipoidemia.**—The lipemia and lipoidemia—as the presence of cholesterin and lecithin in the blood is called—were so intense in the case described that the authors regard it as unique in this respect, The patient was a boy of 13, the first symptoms of trouble developed four months before he entered the hospital where he died in less than a month The cerebrospinal fluid was also rich in fat, but nothing was found at autopsy to indicate an embolic process anywhere. The clinical manifestations were those of typical pancreatic diabetes, but the pancreas was found apparently sound. The urine during life contained 3.5 gm of fat granules in the twenty four hours—0.875 per thousand—and 270 per thousand of the ethereal extract of the blood was also fat The literature on the subject of diabetic lipemia, and its probable origin in some general metabolic disturbance are reviewed and discussed.

123 **Hydatid Cysts of the Heart.**—Baecchi reports a case and compares it with fifty eight others of which he has found records in the literature, including 15 cases with multiple cysts There was no eosinophilia to aid in the diagnosis, but there was remarkable exogenous proliferation of the cyst

124. **Sphygmodynamometer.**—Salaghi gives an illustrated description of the instrument which combines a sphygmomanometer and an apparatus to measure the velocity of the blood current It is very simple, merely a broad cuff separated into three lengthwise parts, the outer two serving to measure the arterial pressure and the inner the velocity: three tubes connect the cuff with the standard manometer. He gives a number of tracings to show the findings in various conditions and the important information that may be thus obtained

Riforma Medica, Naples

March 1, XXV, No 9, pp 225-252

127 Unreliability of Serodiagnosis of Syphilis with Urine (La reazione di Wassermann eseguita colle urine ha valore practico?) G Pollio
128 Cutaneous Tuberculin Reaction in Bone and Joint Tuberculosis (Valore diagnostico della cutireazione tubercolinica nella tubercolosi ossea ed articolare) G Impallomeni

March 8, No 10, pp 253 280

129 Tumors at Base of Brain (I tumori della base dell'encefalo) G Rummo Commenced in No 9
130 Peculiar Changes in Cutaneous Sensibility in Hysteria (La polarizzazione dell'anestesia isterica) C. Calligaris

Sei-i-kwai Medical Journal, Tokio

January 31, XXVIII, No 1, pp 367-372

131 Experimental Research on Opsonic Index under Ishigami's Tuberculo Toxoidin K Takaki

Nordiskt Medicinskt Arkiv, Stockholm

XLI, Internal Medicine, No. 3 Last indexed Jan 30, p 428

132 *Successful Roentgen-Ray Treatment in Case of Syringomyelia
iman
133 *Lc tion between Infectious Diseases and
rvations sur les *maladies* infectieuses spécifiques) B Ebbell
134 *Acquired Heart Disease in Children (Ueber die erworbenen Herzerkrankungen des Kindesalters) G Forssner
135 *Case of Poisoning by the Flowers of the *Lonicera periclymenum* (Yellow Honeysuckle) O Hanssen

132 **Syringomyelia Cured by Roentgen-Ray Treatment.**—Holmgren and Wiman relate the details of a case of syringomyelia in a workman of 51 in which the Roentgen rays ap

plied to the spinal cord not only arrested the morbid process, but seemed to allow restitution of the functions of the nerve tract involved. The effect is evidently due to direct local action on the pathologic process in the spinal cord, as the improvement involved only the regions innervated from the part of the spinal cord exposed to the rays. The most important effect was the resurrection, he says, of the functions of the hands and fingers. The improvement has persisted to date, nearly two years, and the patient has gained over 25 pounds in weight. The rays may serve to differentiate anesthetic leprosy from syringomyelia in some cases.

133. **Infectious Diseases and Specific Remedies.**—Ebbell comments on the wide difference in respect to the action of drugs between the diseases caused by vegetable micro-organisms and those caused by micro-organisms belonging to the animal kingdom. There does not seem to be any essential difference between the diseases caused by these two groups, he remarks, except in respect to the response to drugs. The animal germs can be destroyed or their development arrested by certain drugs administered internally in doses too small to affect the patient, but the vegetable germs are far more resistant. Dosage strong enough to act on them would kill the patient before the parasites succumbed. According to this law there is no specific remedy for bacterial diseases, and experience to date seems to show that it is useless to seek for such. The efforts in this line should be abandoned, Ebbell declares, and attention concentrated on serotherapy which has already given promising results. If a disease yields to a certain remedy its protozoan origin is thus established. Further research will certainly reveal still more powerful specific remedies for this class of infections.

134. **Acquired Heart Affections in Children.**—Forssner's article won for him the Alvarenga prize. It is based on 47 cases that came to autopsy and 27 other fatal cases. He remarks that in 45 of the 74 cases in children and in 32 of 60 cases in adults the acquired heart affection was the result of acute articular rheumatism. He classifies and tabulates his material, remarking that the 74 cases of fatal heart affections were encountered among 6.602 children in the clinic during the last twelve years. The article is not concluded in this number.

135. **Poisoning from Honeysuckle Flowers.**—A two-year-old boy swallowed some flowers of the yellow honeysuckle and in an hour manifested symptoms of severe poisoning, principally drowsiness, languor, congestion of blood in the head, diarrhea, convulsions and perspiration so violent that the bed clothes were wet through and through, as the spasms abated a little at the end of the eight hours. A few hours afterward the child fell asleep and for several days was peevish and inert with irregular evacuations. The violent perspiration recalls the ancient use of the honeysuckle as a diuretic and diaphoretic. A few cases are on record of the poisoning of children by the fruit of the *Lonicera xylosteum.*

Norsk Magazin for Lægevidenskaben, Christiania

February, LXX, No. 2, pp. 81-168

136 *Tumors in the Nerves and Neurofibromatosis. (Om svulster i nerverne og multipel *neuro-fibromatose.*) F. Harbitz.

137 *Extension in Ambulant Treatment of Fracture of the Arm. (Den ambulatoriske extensionsbehandling paa overextremiteten.) O. Borchgrevink.

136. **Tumors in the Nerves and Neurofibromatosis.**—In this first installment of his article, Harbitz relates more or less of the details of 21 cases, including 12 of a solitary tumor in the nerves, 4 of a tumor in the optic nerve, 2 of multiple tumors, fibromas, on nerves, and 2 of a diffuse sarcoma in the cauda equina. His experience includes a still larger number of tumors in the nerves, but the clinical details are lacking of some of the others, so he does not include them in his list. He here discusses the pathologic anatomy of tumors involving nerves, and defines the affection known as multiple neurofibromatosis, giving its history.

137. **Extension in Ambulant Treatment of Fracture of the Arm.**—Borchgrevink shows in nine illustrations the special devices which he has found extremely useful in applying extension to a fractured arm while allowing the patient to be up and about. In 450 cases in the last six years the devices have given constant satisfaction, the Roentgen rays showing in the large majority that the results were as good as could have been obtained with suture of the bone.

Ugeskrift for Læger, Copenhagen

January 28, LXXI, No. 4, pp. 77-106

138 Diagnosis of Destruction of the Labyrinth. P. Tetens Hald.

Books Received

All books received are acknowledged in this column and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. A selection will be made for review in the interests of our readers and as space permits.

CONSERVATIVE GYNECOLOGY AND ELECTROTHERAPEUTICS. A Practical Treatise on the Diseases of Women and their Treatment by Electricity. By G. Betton Massey, M.D., Attending Surgeon to the American Oncologic Hospital, Philadelphia. Edition 6. Cloth. Pp. 462, with illustrations. Price, $4. Philadelphia: F. A. Davis, 1909.

AN EXPERIMENTAL STUDY OF SLEEP. (From the Physiologic Laboratory of Harvard Medical School and Sidis' Laboratory). *By* Boris Sidis, M.A., Ph.D., M.D., Author of Psychopathologic Researches in Mental Dissociation. Paper. Pp. 106. Price, $1. Boston: Richard G. Badger, 1909.

THE PRACTICAL GUIDE TO HEALTH. Designed for Nurses and for Home Use. By Frederick M. Rossiter, B.S., M.D., Author of "The Story of a Living Temple." Cloth. Pp. 637, with illustrations. Price, $3. Washington, D. C.: Review & *Herald Pub. Assn.*

SELF-CONTROL AND HOW TO SECURE IT. By Dr. Paul Dubois, Professor of Neuropathology in the University of Berne. Cloth. Pp. 337. Authorized Translation by Harry Hutcheson Boyd. Price, $1.50. New York: Funk & Wagnalls Co., 1909.

THE PHYSIOLOGIC STANDARDIZATION OF DIGITALIS. By Charles Wallis Edmunds and Worth Hale. Hygienic Laboratory. Bulletin No. 48. December, 1908. Paper. Pp. 61. Washington: Government Printing Office, 1909.

ANNUAL REPORT OF THE SURGEON-GENERAL OF THE PUBLIC HEALTH AND MARINE-HOSPITAL SERVICE OF THE UNITED STATES. 1908. Cloth. Pp. 220. Washington: Government Printing Office, 1909.

MY LIFE AS A DISSOCIATED PERSONALITY. By B. C. A. With an Introduction by Morton Prince, M.D. Paper. Pp. 47. Price, 50 cents. Boston: Richard G. Badger, 1909.

RADEMACHER'S UNIVERSAL AND ORGAN REMEDIES. Abridged and Translated by A. A. Ramseyer. Cloth. Pp. 104. Price, $1. Philadelphia: Boericke & Tafel, 1909.

New Patents

Recent patents of interest to physicians:

913263. Ankle support and protector. H. J. Collis, Taunton, Mass.
913127. Jury and jury-frame for facilitating orthopedic treatment. G. W. Haas, Los Angeles, Cal.
913492. Ma [illegible] A. Haines, Cleveland, Ohio.
913297. Me [illegible] injecting purposes. K. Kraut- [illegible] Austria-Hungary.
913426. Converting catechu-tannic acid. W. Osborne and H. Schupp, Munich, Germany.
913559. Pasteurizing apparatus. A. A. Pindstofte, Frederiksberg, near Copenhagen, Denmark.
913323. Sanitary washbowl. C. F. Tollzien, Salem, Ohio.
913686. Method and apparatus for atomizing and spraying oily materials H. O. Brandt, Manchester, England.
913688. Respirator. W. Bucklen, Jr., Marble Rock, Pa.
914295. Eye-cup. C. A. Maher, Ottawa, Ill.
913836. Sanitary bed-pan. M. B. Morgan, New York, N. Y.
913910. Pasteurizing apparatus. J. T. H. Paul, Chicago, Ill.
913983. Catamenial receptacle. P. J. Scheller and N. I. Haas, Evansville, Ind.
913855. Suspensory sack or pouch. H. C. Shaw, Chicago, Ill.
913989. Obstetrical apparatus. B. H. Simpson, Noblestown, Pa.
914785. Invalid's supporter. E. I. Boyce, New York, N. Y.
914644. Obtaining animal serum. R. H. Deutschmann, Hamburg, Germany.
914935. Poultice case or container. H. J. Dunn, Oakland, Cal.
914950. Syringe. J. R. Harris, Raton, New Mex. Ter.
914576. Respirator. G. F. Jaubert, Paris, France.
914725. Sputa-cup and holder. F. C. Jonah, Boston, Mass.
914871. Syringe. H. F. Ong, Portland, Ore.
915000. Deodorizing and disinfecting device. A. G. Walter and B. M. Inman, Fremont, Ohio.
914623. Manufacture [illegible] plates for X-ray machines. H. H. William [illegible]
914544. Disinfecting [illegible] Williams, Sedalia, Mo.
915329. Sphygmomanometer. L. F. Bishop and R. Grace, New York, N. Y.
915561. Capsule filling machine. T. P. Curry, Danville, Ky.
915197. Vibratory massage apparatus. C. O. Lindstrom, Chicago, Ill.
915315. Massaging implement. O. N. Tevander, Chicago, Ill.
915127. Obstetrical appliance. M. H. Topping, Flat River, Mo.
915251. Massage device. J. Vanderslice, Montreal Annex, Canada
915646. Atomizer. E. J. Worst, Ashland, Ohio.

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Address

THE CRITICAL PERIODS IN THE LIFE OF A PHYSICIAN *

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BOSTON

The life of a man is marked by certain critical periods. Birth, marriage and death are commonly so reckoned. Their importance, as conventionally defined, is chiefly historical. In this conventional form they may be regarded as erroneous concepts developed during the lamentable and prolonged darkness which preceded the advent of the biologist. We now know that birth and death are inseparable companions. They begin together long before that change of habitat which we ordinarily call birth, and they go on together even after death has plainly the upper hand. What have we, as rational beings, to do with these processes? Nothing. We are born blank. Of death we know even less than of birth. Ages before the Pharaohs, death came mysterious, unsolved, and still so comes. We have no personal data of birth because we are born without the powers of observation and reason. And we have no data regarding death because our powers take flight before death comes.

To the uninstructed marriage will seem in a different category. I will not deny the obvious fact that its incidence is different. Marriage usually takes place about half way up the ascending portion of the curve of life. By that time our reasoning powers are partly developed. I confess, therefore, that we have our wits, but as a biologist I strenuously deny that we are able to use them. In this even the laity will support me, though by instinct rather than by reason. The preservation of species is perhaps the most important of all natural processes. It is wonderfully safeguarded. In the higher animals, and especially in man, a very complicated protective reflex has been created. It is commonly termed falling in love. The term itself illustrates the process. We despise a calculating lover, and at the root of this distaste lies the subconscious fear that the automatic protection devised by Nature may be evaded. When the symptoms of love are properly marked, reason is not only superfluous, but harmful. Fortunately, it is commonly also wholly ineffective. The locksmith himself is proverbially futile. And so while marriage, biologically regarded, possesses academic interest, it is, like life and death, irrational. It can not, therefore, be considered a critical period in the rational life of man.

These critical periods are two. In the first the youth must choose his gods; he must make up his mind what kind of a man he wishes to be. In the second the man whose youth is gone, on whose temples time has laid his warning touch, must ask of these same gods whether life be still worth living.

We are met to-day with men who are about to choose. For twenty years these men of 1908 have studied in the schools. To-day their cloistered life is done. The ocean of affairs lies before them. They must embark, these half-reluctant youths, and lay their course.

This period of choice is not without suffering. During his undergraduate life the student leans on teachers and comrades to an extent he scarcely realizes. Suddenly these props are withdrawn. His teachers shepherd a new flock. They no longer stand *in loco parentis* to the young physician who is now a colleague. Love him they may, interested in his welfare they surely are; but the old collegiate bond is loosed, and the freedom of master toward pupil is no longer permissible. The soothing routine of life in the professional school is also gone. To the creaking of the educational machine succeeds a dolorous silence. The first sensation is of luxurious freedom. Soon, however, painful doubts arise. Is the recent graduate to succeed? Has he mistaken his calling? Is he sure of his own powers?

I can still see with almost distressing intensity the surgical ward in which I applied my first dressing: the long, sunny room with its shining floor; the rows of spotless beds, each with a competent critic active to enjoy the awkwardness of the new doctor, and, most distressing of all, the trained nurse, perfectly appointed from her cap to her noiseless shoes, a miracle of freshness and learning. I am now confident that women know very little more than men; but on that day I would have given anything to be sure of ever knowing half so much as that nurse seemed to know.

Marion Sims was one of the great benefactors of his race—a physician of pure genius. He began practice in a small village in the south. His first patient was a baby. After some days it died. His second patient was also a baby. For a time all went happily. Then came a turn for the worse, and in twenty-four hours this child also was gone. Sims went home, tore away his sign, which was of tin and very large, and threw it down a well. The greater the imagination, the greater the anguish of these early days.

In the midst of these cruel doubts there come insidious temptations. The young man may be offered a harbor under the lee of some commercial enterprise. I know a youth who was tempted by the post of resident physician to a remote industrial village, with a house to live in and an ample salary. He asked advice of two physicians, full of years and honors. One said, very cautiously, that he feared that the distressed young man would be sorry whichever way he decided. The other said it was clearly a choice between present poverty with the hope of distinction, and an immediate competence with a stiffened mind. Trials like these are the test of an education. An education should harden the spirit against the torture of self-doubt and teach us to welcome poverty with the hope of future service. The value lies in the nature of that service.

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* An address at the first Class Day celebrated by the Senior Class at the Harvard Medical School.

Here I would urge felicity of choice. It is strange that in all the years I have been a student no one has lectured me on felicity of choice. Of industry I have often, too often, heard. One would suppose from the tiresome iteration of the word that industry possessed intrinsic excellence. Except as an anodyne, industry has, of course, no value independent of the end to which it is applied. The industry of a thief is not to be commended. Nor is indiscriminate industry of any sort desirable. Students believe that if only they work hard enough they will arrive somewhere. This does not necessarily follow. For unimaginable centuries the earth has worked prodigiously on the moon; but this exemplary satellite has come no nearer. Lessing's raven should know by this time the futility of unintelligent industry.

> The raven observed that the eagle sat on her eggs for thirty days. "And that is doubtless the reason," cried the raven, "why the young eagle becomes the king of birds. Good! I also will do this." And ever since the raven actually has sat on her eggs for thirty days; but thus far she has brought forth only miserable ravens.

On reflection it will appear that felicity of choice is not the only subject of high educational importance omitted in the schools. Indeed, it is probable that the stated education is everywhere merely elementary. The higher education is too subtle for our coarse curricula. It will not take the pedagogic mold. Bounds can not be set to the more precious values, and a definition is in itself a badge of inferiority. Who shall define the skylark's song that ravishes the soul from earth and bears it up to heaven? That which can not be defined in words can not be conveyed by them; but I may say that the end for which we would scorn delights and live laborious days is personal. It is the happiness of regarding the world from the standpoint of the philosopher.

There died not long ago in Leipsic a famous physiologist—Carl Ludwig. The older English and American physiologists were most of them his pupils. Never was there a teacher like him, at least in his own science. Lucidity of mind, an extraordinary insight into phenomena, and a marvelous skill in the invention of methods were in him united with a most lovable disposition. His high enthusiasm burned undimmed for more than fifty years. To Ludwig's laboratory I made a pilgrimage some months before his death. The simple rooms from which had come so many glorious discoveries were filled with pupils at research. On my venturing to say that it gave us all new faith in life to see him still so fruitful—he was then 72—he replied that his only grief was that he must leave off just when it was most interesting.

Ludwig's life was spent in observation, reflection, experimentation and further reflection. The method of every philosopher is the same, and this same union of observation, reflection, experimentation and further reflection will lead the young physician to the highest honors in his profession and to the largest personal happiness.

I do not mean that happiness shall be pursued. The Declaration of Independence was necessarily in some respects a shallow document, and nowhere more so than in the celebrated phrase "life, liberty and the pursuit of happiness." Our life is at the disposal of any infected wretch who asks it; liberty is unsocial and in our complex society practically unattainable; and happiness flies from pursuit. In the career that I propose as the most desirable, the young physician and philosopher thinks not of life nor of liberty, and turns his back on happiness. His single aim will be the public service. Yet experience richly shows that lives thus spent are happiest in the end. And, further, they are perhaps the only lives that pass unscarred through the second critical period.

As age steals on there comes a weary time. The pleasures of youth are gone; the energy which seemed inexhaustible is plainly waning; a taste of reputation has shown that it can not satisfy; cares increase, and an inevitable acquaintance with evil seems to make the whole world gray. The youth doubts his own fitness for the struggles and rewards of life; but the older man disillusioned and perhaps embittered, questions life itself.

Many a green isle needs must be
In the deep. wide sea of misery,
Or the mariner, worn and wan
Never thus could voyage on
Day and night, and night and day,
Drifting on his weary way,
With the solid darkness black
Closing round his vessel's track.

Then comes the supreme test of education. The physician who is also a philosopher endures this test. To him neither disillusion nor bitterness are possible, and the evil of the world is more than balanced by the good. Nor does he grow old. It is experience in the sense of repetition that makes one old; experience, in its true sense of experimentation, is the fountain of youth. To the philosopher life is a succession of problems, each more interesting than the last, and at the end he lies down, tired, perhaps, but grateful.

The training which creates the experimental state of mind is easier to obtain at the present day than even twenty years ago. The medicine taught in the schools was once almost wholly didactic. The freedom of dissection, won after a hard fight, afforded training in observation. The introduction of chemical laboratories, and later of practical work with the microscope, greatly enlarged this training. Observation now became the principal discipline of the medical school. At present the requirement of physiologic experimentation and the opportunity for the first-hand diagnosis of disease at the bedside are beginning to weaken the undue emphasis still laid on observation and to establish the pedagogical value of scientific reasoning controlled by rigid experimentation. Yet the battle for a schooling that shall teach men to think is hardly begun. It has always been a difficult fight, and it is made greatly more difficult in medicine by very interesting conditions.

Medicine was once practically an art. It has been widened by the entry of many sciences. Expanding irresistibly with the new spirit, Medicine has broken the hereditary bonds that fettered her as they still fetter Theology and Law. Medicine in her new state is a complex of sciences and arts. It is here that the difficulty lies. For the making of new discoveries, the coming of these new sciences into this ancient profession is an unmixed blessing. For the healer at the bedside science is an advantage only when its relations to empiricism are clearly understood. The practical physician must often be purely empirical. He is summoned to a house hushed in the fear of death. The mother weeps by the bedside of her only child. This is no place for the slow processes of a rational science. Speed and an accurate empiricism will here alone save life—morphin for the pain, an antipyretic for the fever—the fruits of science, doubtless, but not the method. Cases such as these often make the practicing physician impatient of science. He is right so far as he goes. At the bedside science is sometimes a hindrance. Yet in many, perhaps most, cases the methods of rational science may be applied to the diagnosis and the healing of disease with results unobtainable by empiricism.

But the healing of the sick is only a part of the duty of a physician, and for those who have the necessary originality of mind it is the lesser part. A patient is an individual, a social unit, and while his death may be a public misfortune, its importance is infinitesimal compared with the conquest of disease. The benefits of a discovery in medicine are cumulative. The individuals whose premature death was prevented by the new discovery live out their lives, but soon are gone. The knowledge that gave them their peaceful old age lives on and on, generation after generation.

The state of mind that leads to discovery is not to be had from books or the routine of schools. Always it has been a personal tradition handed down from master to pupil in the long line of those who have sought to still the cry of suffering by discovering its cause. It was Hippocrates who exclaimed: "God-like is the physician who is also a philosopher!" And he will be happy.

> Sweet hope shall cherish his old age.

As the years pass he will more and more believe that many, if not all, the plagues that now make life so hard will be overcome by those to whom, as youths, he may perchance himself hand on the torch.

Original Articles

HYSTERICAL BLINDNESS

NOTES OF THREE CASES, ONE OF WHICH EXHIBITED ASTEREOGNOSIS [*]

THEODORE DILLER, M.D.
PITTSBURG, PA.

Kerneis[1] collected in 1902 from the literature thirty-four cases of bilateral hysterical amaurosis, to which de Schweinitz,[2] who quotes him, adds several others which were published later, and I have been able to find four additional cases myself.

Hysterical blindness may be of sudden or gradual onset and affect one or both eyes. It may last from a few hours to several years and may be intermittent in character. Hasenknoff[3] reports a case of recurring hysterical blindness in a boy, aged 10 years, with astasia-abasia and hysterical vomiting. In all recorded cases vision was sooner or later restored, so the prognosis is good.

Blindness, in the absence of inflammatory changes, and with normal fundi and pupillary reaction, is strongly suggestive of hysteria. Sudden onset and sudden termination also argue for this diagnosis and indeed hardly admit of any other. Among the other symptoms accompanying hysterical blindness have been ptosis, nystagmus, strabismus and conjugate deviation. Commonly, in the recorded cases, there have been other manifestations of hysteria, but amaurosis may be the sole expression of it, as in a case reported by Dieulafoy.[4] Unilateral hysterical amaurosis occurs rather more rarely than the bilateral form, according to Kron, and offers different diagnostic problems. But bilateral hysterical amaurosis is almost as rare an affection. The following case, therefore, appears worthy of record:

CASE 1.—*Patient.*—A man, aged 49; married twenty-five years; a painter by occupation. He smoked and chewed a little; but did not drink and never had acquired venereal disease. He lived in a small country town and his life had been quiet and uneventful. He had worked regularly at his occupation and was never off work on account of serious illness.

Present Illness.—On Jan. 1, 1907, he escorted his daughter, who was making a little trip, to the train. He carried her bag into the car; and while there was suddenly stricken with blindness in both eyes. He had to be led from the car. The blindness was almost complete. He could just distinguish light from darkness. At the end of a week he consulted a physician who did eye work, and was under his care for two months, during which time vision slowly and gradually improved. He was now able to see headlines in the newspaper but not to read ordinary print. His vision remained in this stage until June, 1908, when he came to Pittsburg and placed himself under the care of an irregular practitioner who told him he had a tumor in the brain, and who treated him for six weeks. The treatment consisted in the passage of electricity through the eyes. He was considerably improved by this treatment, and the improvement continued for a time after he returned to his home in the country. Then it remained stationary for about two months. Since about July, 1908, the vision had been gradually failing. In June, 1908, on awakening one morning, the patient found that he was paralyzed in the right forearm and hand from a point a little below the elbow downward and there was a complete loss of feeling in the hand, which felt numb. He gradually regained nearly all the lost muscular power, but only to a moderate degree did he recover the lost sensation in the hand. There seemed to be no trouble from the elbow upward. The "paralysis" (really sensory loss) made the hand useless; and even although the "paralysis" was improved at the time of the first examination the hand was still almost useless because the patient could not feel or distinguish objects with any certainty.

Nothing unusual had occurred at or just before the time of the onset of the blindness. The patient had been out of work for a week, but he was not worrying on this account, as he expected to return to work very shortly. He was not worried or agitated over anything. I subsequently learned by observation and historical data that the patient was a weakling in character, prone to fits of anger, petulance and resentment. He had been hard to live with. On one occasion, several years ago, he made an attempt to cut his throat. The scar present indicated that the cut penetrated no deeper than the skin.

General Examination.—October 17 and the three succeeding days. The patient was led into my office by his daughter as though he were totally blind; and his attitude and gait suggested that of the blind man. He moved his whole head to see an object. The vision was, however, about 20/40 in each eye. With the dynamometer he registered 50 with the right hand and 60 with the left. The knee-jerks were normal.

Sensation: There was almost complete loss of pain sense over the right forearm and hand from a little below the elbow. Over the rest of the body there was considerable diminution of pain sense but nowhere else entire loss. Conjunctival reflexes were lost. Contact sense was normal. With the eyes closed the patient could not tell in what position his fingers of the right hand were placed.

Stereognostic Sense: The patient was unable to recognize objects placed in the right hand. The movements he made were clumsy and not adapted to recognize the object in his hand. The object often fell from the hand. He used this hand very little in dressing and undressing himself. He said it was useless.

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[*] The first patient was shown at a meeting of the Pittsburg Academy of Medicine, Oct. 27, 1908.

[1] Etude sur la cécité hystérique ou amaurose hystérique totale et bilaterale, Bordeaux, 1902.

[2] Eye and Nervous System, p. 614.

[3] Charité-Ann., 1906, xxx, —.

[4] Dieulafoy, R.: Rev. neurol., 1907.

Ocular Examination.—The eyes were carefully examined by Drs. Markle and Curry; the former furnished the following report of his examination: "Oct. 21, 1908, examination of the eyes of H. G., aged 49, showed visual acuity in each eye of 20/40. The pupils are 3½ mm. in size and are equal. The irides react to light promptly, also to accommodation. There is a slight hyperopia or far-sightedness (one-half diopter), with presbyopia, the correction of which gives distant vision equal to 20/30 in either eye and enables him to read readily Jaeger No 1 type. Other than a slight esophoria (one degree) no imbalance of the extraocular muscles exists and no limitation in any direction in the excursion of the eye could be detected. The ophthalmoscope showed clear ocular media and normally appearing fundi. The visual fields indicate enormous concentric contraction and are of the tubular form, i. e., the fields show great contraction and remain the same absolute size no matter how far distant the patient may be from the point of fixation. There are no scotomata. The field for color, red, green and blue, is equally extensive but is not greater than the form field. A second field taken five weeks later (November 25), as shown by the appended charts (Figs. 1 and 2), reveals essentially the same or but slightly increased area in the visual field. At the later date the visual acuity equalled 20/30 in either eye without glasses."

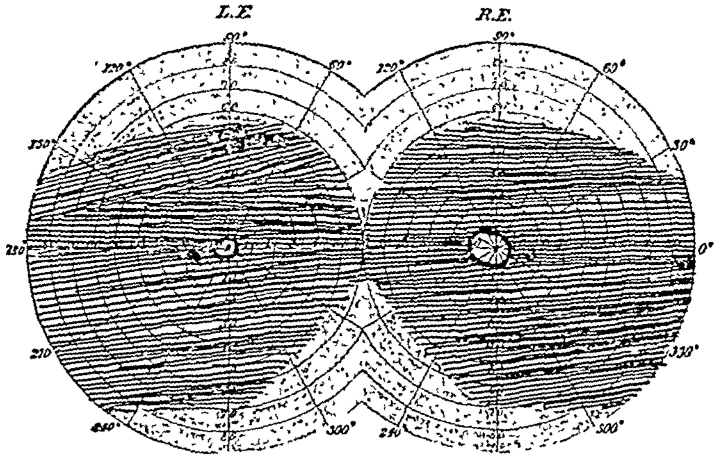

Fig. 1.—Field of vision (tubular in character) on Oct. 21, 1908. O. D. V. = 20/40; O. S. V. = 20/40. The patient named white, yellow, red, green and blue (mm. disc) correctly at central fixation point. No scotomata.

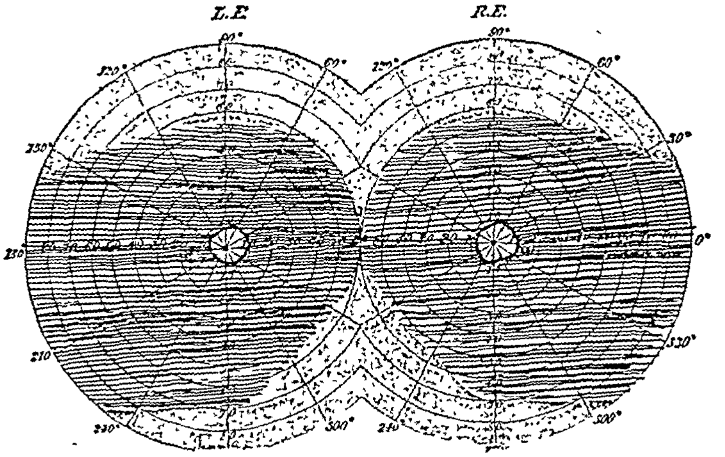

Fig. 2.—Field of vision on Nov. 25, 1908; still tubular in character. O. D. V. = 20/30; O. S. V. = 20/30.

Course of Illness.—Under suggestive treatment and enforced exercises the patient acquired much greater use of the hand; and he learned to dress himself and to go about alone, etc. But he never seemed to me very anxious to get well.

This case presents several interesting features: the sudden blindness, and later sudden monoplegia with loss of pain sense, the loss of stereognosis sense in the affected member due apparently to loss of muscular and articular sensation, and contracted visual fields of the tubular variety. It is very interesting to note that astereognosis may be a hysterical manifestation. It is, however, on the ocular manifestation that I wish to comment particularly in this paper. So I shall not now consider these other interesting points.

Looking over my case-book, I find records of two other cases of hysterical blindness which I desire to mention briefly:

CASE 2.—Several years ago I saw a man whose case was an undoubted one of major hysteria. He had had a monoplegia and later a hemiplegia; the former was transferred from one arm to the other and from one leg to the other. He gave a history of having been blind or nearly blind for a period of two months one year previously. He could see only fingers before his face. During these two months the blindness improved and grew worse several times. Examination of the eyes was negative.

CASE 3.—I have also notes of the case of an unmarried woman, aged 25, who was examined ten years ago by me. Her case was also an undoubted one of major hysteria of the most pronounced type. She had at that time been ill for three years. For fourteen months of this time she had been confined to bed on account of paralysis of all four limbs. Latterly the paralysis had been hemiplegic in character. She was subject to severe convulsive attacks. When I saw her the hemiplegia was improving and she suffered from contracture of the third and fourth fingers and with marked degree of amblyopia. She had only slight vision, enough to enable her to distinguish persons, and what vision she had appeared to be central. Her eyes had been examined by one of our most competent ophthalmologists who was unable to discover any organic disease. He recommended the use of the galvanic current passed through the eyes, which prescription I carried out. This amblyopia persisted for several months. I met this patient on the street about a year ago looking the picture of health; she appeared to be happy and in the best of spirits. She had been happily married three or four years previously.

Westinghouse Building.

THE BLINDNESS OF HYSTERIA

H. GRADLE, M.D.

CHICAGO

It has long been known that in hysteria disturbances of sight occur comparable to the anesthesia in other sensory regions. In relatively rare instances the disturbances may amount to one-sided or double-sided complete transient blindness. More common, however, is the mere reduction of sight usually associated with contraction of the visual field and some disturbance of color perception. As the full literature is readily accessible in de Schweinitz's excellent article on hysteria[1] it is unnecessary to repeat it here. My main object in relating my own experience is to show that the problem of psychic diminution of sight is a live one and not merely an academic question, since neurologists often quote the statement that the hysterical patient is neither conscious of nor annoyed by a certain degree of one-sided or even double-sided visual imperfection. My experience has shown me that the real importance of psychic influences on the eye is more apparent in the oculist's office than in the neurologic clinic.

I shall arrange my material in different groups and begin with the most striking type.

DOUBLE-SIDED COMPLETE BLINDNESS

The most dramatic instance was that of a middle-aged woman in the practice of Dr. Ritter, who called me into consultation.

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[1] In Posey and Spiller's Eye and Nervous System. 1906.

Case 1—The patient, hitherto in good health, had had a severe shock to her feelings the previous evening, and clapping her hands to her eyes to shut out the sight, found herself absolutely blind No objective reason could be found for the blindness, while the freely mobile pupils showed that light was perceived at least by the lower centers Yet she could not tell the direction of the window Her great anxiety to be cured made the prognosis favorable She was told to gaze toward a distant clock with the understanding that a few minutes' electric treatment would enable her to see the clock distinctly and without fail A mild faradic current applied to the temples and "suggestion" restored normal sight permanently

According to Kron there were but 26 cases of bilateral hysterical blindness reported up to 1902. While some of these were cured by suggestive measures at once or speedily the disturbance persisted in others for variable and long periods of time with occasional relapses

ONE-SIDED HYSTERICAL BLINDNESS

One-sided hysterical blindness was found by Kron reported only 23 times It is probably not very rare but is not usually put on record The following is a good example.

Case 2—*Patient*—D, a vigorous young man of 20 years had accidentally had a porcelain knob thrown at him six weeks ago, since which time he claimed to be blind in the right eye He had been under treatment in the country and wanted my opinion as to the probability of recovery

Examination—A small scar slanting through the right brow was evidently limited to the skin The orbital margin felt sound The right eye was objectively normal in every way like the left and the pupillary actions of both were perfect The left eye had normal V and normal field The patient denied all perception of light in the right eye By throwing light alternately into each eye with the ophthalmoscope I could convince myself that the patient could localize correctly with the blind eye There was also a distinct compensatory movement of the blind eye when weak prisms were placed before it while watching a light These tests, and especially the normal play of the pupil, showed at least a moderate perception of light in the right eye of which the patient claimed to be unconscious The promise of a good prognosis and various suggestive manipulations, like electricity, had no immediate effect on the psychic blindness Yet there could be no doubt about the psychic nature of the blindness For, had the optic nerve been injured by the accident, partial atrophy would have been recognizable after the lapse of six weeks In the present case there was no reason to suspect simulation The patient wanted no testimonial and seemed anxious for a good prognosis Besides there was no question of any damage suit or insurance considerations

As the patient did not return I know nothing of his subsequent history except that he was examined by two colleagues within the next two weeks with the same findings

The distinction between hysteric—or let us say psychic—blindness and wilful simulation can not be based on objective findings They would be the same in both cases We must base our judgment on a psychologic analysis of the patient's mind and object I have seen two other instances of alleged one-sided blindness following a trivial traumatism in which examination led to the same results as in the above-quoted patient There was no demonstrable lesion there were normal pupillary reaction and compensatory movements of the blind eye under a prism which would have caused double sight and yet any sensation of light was absolutely denied But as both those people were anxious for damages and did not seem particularly pleased with my definite assurance of recovery I unhesitatingly qualified them as malingerers I may of course have been influenced somewhat by mannerisms of the patients which one can hardly describe but which impress the observer as regards their sincerity.

Much more common than total blindness of psychic origin is moderate impairment of sight in hysterical subjects. Observers of Charcot's school (Parinaud and Gilles de La Tourette) have often found in hysterical people moderate amblyopia, mainly one-sided, contraction of the visual fields, particularly for colors and with this not uncommonly anesthesia of the front and the neighborhood of the eye These observations lose much of their importance from the fact that the subjects are either not conscious of them or at least are not annoyed by them in their every-day life. Like some of the other stigmata of hysteria they are either brought out or at least accentuated by the examination.

PARTIAL IMPAIRMENT OF SIGHT IN OTHERWISE NON-HYSTERICAL SUBJECTS

Of greater clinical significance are interference with good vision complained of by people who are otherwise not suffering from hysterical manifestations, or at least not at that time. In my observations of such cases I have found neither contraction of the visual field nor marked changes in the fields for colors such as reversal of the limits of red and blue My suspicions regarding the psychic origin of sight impairment in a number of such cases were based on the absence of other explanations and the emotional instability of the subject. But the diagnosis of hysterial or psychic amblyopia was considered established only when the condition had proved fugitive and the prolonged observation had excluded all other explanations The following cases illustrate some of the various clinical aspects.

Case 3—*History*—R, a salesman, aged 35, stated that his eyes had been in satisfactory condition until within the six weeks preceding examination He noticed an occasional blurring, at first only in reading, later on too, in distant vision, and thought that the right eye was at fault wholly or at least much more than the left At least three weeks, but probably longer, the lids troubled him, especially on the right side and the trouble was increasing

Examination—The left eye was objectively normal except for a slight chronic conjunctivitis V = 20/35, with cyl + 0 5 axis 90° V = 20/20 The right eye showed considerable acute inflammatory swelling of the edge of the upper lid, with pronounced catarrhal conjunctivitis, but with very scant secretion The eyeball was pale, pupil, media and fundus normal V = only 20/80, not improved by any glass The near point was about eight inches for either eye The field for white and colors was normal and there was no scotoma.

Course of Illness—The cause of the dimness in the right eye was not clear Careful testing showed that it was not due to mucus floating on the cornea or to regular astigmatism There were no symptoms suggesting any disease of the optic nerve Neither the history nor the physical examination pointed to hysteria But there was an emotional display in the man's answers to questions and an exaggerated anxiety in his manner that, together with the enfeebled accommodation, made me suspect that his ambylopia might be of psychic origin, perhaps induced by the pressure exerted by the inflamed lid on the cornea Accordingly I gave him as positive a promise regarding the recovery of sight as seemed warranted, and confined the treatment to local applications for the inflammation of the edge of the lid and conjunctiva (nitrate of silver, zinc sulphate solutions, Credé's ointment of soluble silver) Three days later the external condition had improved without the formation of the stye which I had expected His sight seemed clearer to him but was not objectively changed Field normal even for colors On the seventh day the lid was practically well, and V was found 20/25 in the right eye, and the accommodation in both eyes improved so as to enable the patient to read without fatigue.

When seen a few weeks later he was found normal in every respect.

Case 4.—*History.*—Miss F., cashier, 20 years of age, had been nervous, apparently from close confinement to work. On account of slight asthenopia she had been wearing cyl. 0.50, axis 90. She was also said to have had slight convergent strabismus in former years. Without known cause she felt on the day before examination a "snap" in the left eye, had since seen very poorly with that eye and had besides a dull ache in the rear of the head.

Examination.—Objectively both eyes were normal in every way and the pupillary reaction was normal. The right eye had V. = to 20/40 plus with her glass. Accommodation and field were normal. The left eye only saw the hand at six feet and recognized no colors but had intact field. The patient was given antipyrin for the headache and a dose of calomel.

Course of Illness.—Two days later the patient returned feeling much better. The sight of the right eye was still below par (20/40) but the left eye with correction had nearly as good sight as the right and could now see all colors. More accurate testing showed a hyperopia alike in both eyes amounting to 0.75 D with 0.50 D astigmatism, confirmed under homatropin. There evidently had been a former convergent strabismus of the left eye which the patient had outgrown spontaneously, for there was still an occasional tendency to convergence, alternating with binocular fixation. On account of some asthenopia, mainly due to anemia and nervousness, she was seen off and on for two years subsequently. With the exception of one other period of dimness of the left eye lasting half an hour she retained a sight of nearly 20/30 (with correction) in both eyes.

HYSTERICAL EXAGGERATION OF CONGENITAL AMBLYOPIA

The next instance in which the inferiority of one eye, probably congenital, was exaggerated psychically was much more difficult of interpretation.

Case 5.—*History.*—V. A., a boy of 11, had been a frail child and passed through a variety of children's diseases. Three ..rs before the present trouble he spoke of poor sight in the t eye, was treated and said to have been improved, but gain claims since a short time that with the left eye he could only perceive light. He also complained somewhat of discomfort on using his eyes.

Examination.—The patient was a frail-looking boy, mentally well developed, somewhat anemic, though otherwise now in good health but restless, fidgety and emotional, with an extremely long and high but narrow skull. Both eyes were externally normal, and there was no visible strabismus. The right eye was perfect with a hyperopia of 0.75 D. The left eye could barely tell a light but the pupil reacted normally and light in the left eye influenced the pupil of the right eye. The ophthalmoscope showed a healthy eye but with an anomaly which seemed to me a malformation. From the normal papilla there protruded three short club-shaped or stemlike opacities into the vitreous, while a longer one, apparently the remnant of the hyaloid artery, passed from the center of the disk forward to about the middle of the vitreous. The anomalies, probably congenital malformations, were not inconsistent with good vision in view of the integrity otherwise of the disk and fundus. That there was fair sight was shown by the normal pupillary reaction both direct and consensual. On the other hand, prisms could evoke neither double sight nor compensatory movements of the eye said to be blind. It seemed more probable to me therefore that this eye with congenital anomaly had defective central sight. The alleged total blindness I considered hysterical.

Course of Illness.—Iron was prescribed and the faradic current used on the temple with a hint that it would have to be used stronger if not effectual soon. A few days later the boy returned with the ability to count fingers at ten feet and with normal vision and color sense. This condition did not change any further within a month's observation.

MALINGERING AND HYSTERIA IN CHILDREN

It is difficult in children to draw a sharp line between wilful misrepresentation and real psychic interference with sight. Youngsters with vivid imagination are apt to consider disturbances created by their fancy or ideas as real. For instance:

Case 6.—A boy of 8 years was brought to me because he could not see writing on the blackboard in school. I found no objective reason why he should not have perfect sight, but I could not get him to read more than 20/200. This poor vision was somewhat improved by almost any weak glass. By using a slightly disagreeable faradic current with the implied threat that it would have to be made stronger I raised the sight at once to the normal standard. After a short vacation and some iron for the anemia there was no further trouble.

The diagnosis is more difficult when suggestive influences do not improve the sight promptly. My general experience in hysterical conditions has been that immediate cures can be expected only in cases of very recent onset, while a persistence of symptoms for weeks makes it unlikely that they will yield to any influence. The following is a good illustration of psychic impairment of sight in a child:

Case 7.—*Patient.*—S. H., a healthy boy of 10, had complained of slight watering and discomfort in the eyes and thought he did not see well. His music teacher had observed that he did not recognize his notes well.

Examination.—Aside from a slightly follicular conjunctivitis the eyes were perfect in every way and emmetropic. But the sight with either or both eyes was only 20/100, perhaps improved a trifle by different glasses, especially concave glasses. Nothing additional was gained or learned by the use of homatropin. The patient's visual fields were capriciously constricted and, as Greef has described it, apparently tubular, that is to say the area which he claimed to be able to see was not larger on a distant wall than it was on a sheet of paper close to the eye—as if he were looking through a tube. His answers concerning colors are contradictory and the field for blue seems smaller than for red.

Course of Illness.—My diagnosis of hysteria was based on the want of objective findings, the contracted and tubular field of vision and the contradictions regarding colors. But suggestion, glasses and electricity did not materially increase his sight while under examination. The frequent frowning and blinking seemed to suggest that conjunctival irritation was the origin of his symptoms. I ordered a sulphate of zinc solution without further directing his attention to the eyes and suggested an out-door life with rest of the eyes. One week later the patient had normal sight, normal field and color sense.

The case is not an isolated one in my experience. I could collect probably half a dozen similar ones from my case books, though none of them are quite as striking and conclusive as the present one.

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THYMOL AS A SOURCE OF ERROR IN HELLER'S TEST FOR URINARY PROTEIN *

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It is a well-known fact that the ordinary tests for urinary proteins, especially for serum proteins, are not specific. Several concordant tests are necessary for satisfactory differentiation. Reliance on a single test often leads to error; a disturbing factor may prevent the detection of a substance that is present or may simulate the behavior of a substance that is absent. It is the object of this paper to present some observations on a disturbing factor in Heller's test.

The tests most frequently used by the general practitioner for the detection of serum protein in the urine are: (1) The heat test—coagulation by boiling aided by a slight proportion of acid; (2) precipitation by potassium ferrocyanid in the presence of acetic acid, and (3) Heller's test—precipitation by concentrated nitric acid.

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* From the Laboratory of Biological Chemistry, Columbia University.

As stated above, none of these reactions is specific for any of the serum proteins, the proteins in the urine about which the physician is mostly concerned, as a rule. *Boiling* the urine precipitates albumin and globulin under certain conditions. e. g., at a certain degree of acidity, but may fail to precipitate them under others. According to the nature of the acid used—nitric or acetic acid—a greater or less acidification will vitiate results. Addition of either of these acids is necessary to guard against the interference of basic phosphates in alkaline or neutral urine. On the other hand, addition of acetic acid in moderate excess will not only dissolve phosphates, but will cause the formation of soluble acid albumin. Nitric acid, if added in too small a quantity, will tend to convert a portion of the basic into the acid phosphates, allowing albumin to remain in solution. An excess of nitric acid will redissolve albumin, especially if the urine should be heated *after* the addition of the acid.

The potassium ferrocyanid-acetic acid test is one of the most reliable and accurate, although the albumoses, nucleoalbumin and urates have to be differentiated. In this test, however, it is often difficult to attain the most favorable volume relation between acid-salt solution and urine.

It is obvious, therefore, that there are urines in which neither the heat test nor the potassium ferrocyanid test will allow an unequivocal interpretation—a situation that occurs frequently in connection with urines containing particularly small proportions of serum proteins. In such cases S. Fraenkel[1] and others most urgently advise the use of Heller's test. Its technic is well known.

In this research, the test was applied as follows: 5 c.c. of concentrated nitric acid were poured into a test tube, the tube was then inclined and, with the aid of a pipette, urine was directed slowly down the side to prevent mixture of the liquids. In this way two sharply defined strata are obtained. Along the line of contact a ring appears if the urine contains albumin or globulin or certain other substances.

According to Hammarsten,[2] "there is hardly another test for protein in the urine which is at the same time so easily performed, so delicate and so positive as Heller's if the possible errors and the means by which they may be prevented are borne in mind." What are these sources of error?

The principle of Heller's test is the precipitation of acid protein by concentrated nitric acid. Any chemical constituent of the urine precipitable by the action of concentrated nitric acid will, therefore, be apt to give misleading results. Here again Hammarsten[2] may be quoted:

> In a urine rich in urates a complication may occur, due to the formation of a ring produced by the precipitation of uric acid. The uric acid ring does not lie, like the protein ring, between the two liquids, but somewhat higher. For this reason, two simultaneous rings may exist in urines that are rich in urates and do not contain very much protein. The disturbance caused by uric acid is easily prevented by diluting the urine with from one to two volumes of water before performing the test. The uric acid now remains in solution and the delicacy of Heller's test is so great that, after such dilution, only in the presence of insignificant traces of protein does this test give negative results. In a urine very rich in urea a ring-like separation of urea nitrate may also appear. This ring consists of shining crystals, and it does not appear in urine previously diluted. A confusion with resinous acids, which also give a whitish ring with this test, is easily prevented, since these acids are soluble on the addition of ether. Stir, add ether, and carefully shake the contents of the test tube. If the cloudiness is due to resinous acids, the urine gradually becomes clear, and on evaporating the ether a sticky residue of resinous acids is obtained. A liquid which contains mucin does not give a precipitate with this test, but it gives a more or less strongly opalescent ring, which disappears on stirring. The liquid does not contain any precipitate after stirring, but is somewhat opalescent. If a faint not wholly typical reaction is obtained with Heller's test after some time with undiluted urine, while the diluted urine gives a pronounced reaction, the presence is shown of the substance which used to be called mucin or nucleoalbumin.

From this quotation it will be seen that the degree of concentration of the urine is an important factor in the behavior of protein toward the concentrated nitric acid of Heller's test. In this connection the following observations made by Hallauer[3] may be of interest: If to urine which has been concentrated on the water bath, albumin has been added, the heat test will be intensified as compared with normal urine containing the same amount of albumin, whereas both Heller's test and the potassium ferrocyanid-acetic acid test fail to show the presence of any albumin in the concentrated urine. If the latter be diluted, the last mentioned tests will again become positive. In urines concentrated beyond a certain degree even the heat test will be negative, and this occurs even in the presence of large amounts of albumin. Dilution of the urine will give here the same result as before. The usefulness of diluting concentrated urine before testing for albumin is very evident.

Another source of error in Heller's test has been discovered in this laboratory. It is rarely possible, even in hospital practice, to make a thorough qualitative and quantitative examination of the urine in the vicinity of the patient or shortly after micturition. Very often either a sample or the total daily quantity of the urine has to be sent quite a distance to a chemical laboratory or to the medical examiner of a life insurance company. There is plenty of time for chemical changes to take place in the urine, be it a change in the reaction and the consequent precipitation of otherwise soluble material, or fermentation and decomposition of the different constituents of the urine. To obviate these disturbing occurrences, preservatives are commonly employed.

Of the large number of chemicals proposed as urine preservatives, toluol, chloroform, formaldehyd, sodium fluorid and thymol are the ones most frequently used. The use of toluol as a urinary preservative is still in the experimental stage. "Chloroform[4] is unreliable in many instances. If a urine has a high specific gravity, the preserving action is greater than when the specific gravity is 1.021 or less." We know that Nylander's test for sugar may be negative in the presence of chloroform in the urine.

> The value[4] of formaldehyd as a preservative is well known, but as a urine preservative it has its limitations, particularly if not used in proper quantity. The chief danger is in using too much. . . . Perhaps the most objectionable feature of this preservative is its reducing action on Fehling's solution.

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[1] Descriptive Biochemie, 1907, p. 578.

[2] Textbook of Physiological Chemistry, 1907; translated by Mandel, p. 641.

[3] München med. Wchnschr., 1903, 36, 1539.

[4] Ogden: Boston Med. and Surg. Jour., 1905, p. 718.

This occurs when several drops of the formaldehyd solution have been added to a small specimen of urine (4 ounces). The copper test for sugar can not, therefore, be used, but other tests must be utilized. Formaldehyd reacts in a peculiar manner with phenylhydrazin, producing an abundant noncrystalline deposit, which, of course, is readily distinguished from phenylglucosazone by the fact that it is noncrystalline.

Kenney[5] has found that when four or more drops of the 40 per cent. solution of formaldehyd are added to an ounce of urine a distinct reaction for albumin is obtained in Heller's test. If, therefore, too much formaldehyd has been used for preservation this test for albumin becomes unreliable. We know, furthermore, that formaldehyd reacts with uric acid, and that the reaction for indican is seriously interfered with and the detection of the bile acids is rendered impossible. It follows from this that the use of formaldehyd as a urinary preservative may give unreliable results.

There remain sodium fluorid and thymol. According to Cronheim,[6] these alone answer the two requirements of a reliable preservative, i. e., maintenance of sterility even if added in a small proportion without causing changes that alter the caloric value of the latter. While it is known that the use of sodium fluorid is attended by the precipitation of calcium salts from the urine, thymol until recently was considered an absolutely safe preservative. "Thymol[4] does not, so far as I know, interfere with any of the tests usually applied to the urine." We have been making observations in this laboratory lately which show that thymol is not so indifferent in this connection as it was supposed to be. Welker[7] found here that, on applying the iodoform test for acetone to distillates from urines preserved with thymol, a pink or red coloration was produced which, while not completely destroying the usefulness of the above test, certainly increases the difficulty attending its application. Rosenbloom will shortly report from this aboratory another fact showing how the presence of hymol may account for unexpected results in an ordinary urinary test.

In the course of our investigation of another problem, a new source of error has been found in urines preserved with thymol in any of the usual ways. If Heller's test s applied to such urine, after filtration, a ring will invariably appear even in the absence of protein. The ing is most marked, all other things being equal, in urines that have been treated with a solution of thymol, although it is very conspicuous in urines that have been preserved with powdered thymol.

The characteristics of this ring may be briefly stated as follows: A few seconds after the urine has been carefully poured on the acid there forms precisely on the line of junction a grayish-white ring about 0.5 mm. high, resembling the ring given by a faint trace of albumin, which gradually becomes more and more distinct, until in some urines, under conditions to be mentioned later, it presents the appearance of a heavy thick precipitate, the height of which gradually increases and renders the lower portion of the urine completely opaque. At this stage the color is more yellowish than that of a protein ring. Below the ring there is a greenish zone extending somewhat into the acid, above it a reddish somewhat smaller zone. The whole ring is best seen by daylight reflected against a dark background; the color rings are best seen if the test tube is held against a white background. On slightly disturbing the layers of urine and acid the ring, if a delicate one, disappears at once but gradually reappears. These effects can be obtained several times in the same mixture. A heavy ring, however, will not completely disappear on slight shaking, but will gradually widen and extend into the upper urinary layer; and it depends on the volume relation between urine and acid whether complete mixing will remove the precipitate. On thoroughly shaking an excess of acid with a little urine, a clear yellow solution results. If an excess of urine has been used, the mixture will not clear up, but will remain turbid. Warming the mixture will not prevent the formation of the ring, nor will it clear the liquid, but, if anything, will make the reaction more distinct. Dilution of the urine with three to four times its volume of water has no prohibiting effect.

As has been indicated, the above reaction is caused by thymol dissolved in urine when the latter is treated with it even in solid form, and it is noteworthy that more thymol is dissolved if the urine is neutral or alkaline than when acid. Accordingly, an alkaline thymolized urine will give Heller's test more pronouncedly than a strongly acid one. But while the thick and heavy ring in the first case will have an appearance somewhat different from the protein ring and thus will hardly mislead the observer, the delicate thymol ring in the acid urine closely resembles a protein ring and is, therefore, more apt to cause uncertainty.

In urine containing both albumin and thymol in various amounts, each ring may be discerned. The albumin ring is wider (from 2 to 3 mm.) and white, whereas the thymol ring forms underneath it and is gray and thinner. The albumin ring may also be completely covered by the thick thymol ring, so that the detection of protein may be seriously interfered with.

Somewhat detailed investigation has shown that this ring consists at first of thymol precipitated by the concentrated acid. At this stage it closely resembles the albumin ring. Soon nitration of the thymol occurs resulting in the formation of nitroso-thymol and possibly also nitro-thymol. This accounts for the gradual color change from white to yellowish white which the precipitate undergoes.

A partially successful attempt has been made to isolate the nitro substance or substances produced. With the aid of chloroform as the solvent, crystals of a yellowish-brown color were obtained that gave Liebermann's nitroso-reaction. These crystals melt at a temperature slightly above 50 C., whereas nitroso-thymol melts at 160 C. Thymol melts somewhat below 50 C. It is probable, therefore, that very incomplete nitration occurred and that the brown crystalline product referred to was a mixture of thymol and a small amount of nitroso-thymol. Besides, some chloroform was doubtless occluded in the crystals.

From the above description of our findings with Heller's test as applied to thymolized urine, it is obvious that the nitric acid test must be modified, if it is to be a reliable test for serum proteins in such urines. It can not be applied directly to urine preserved with thymol. The latter must first be removed by extraction. Petroleum ether is very suitable for this purpose. Gentle agitation of the urine with an equal volume of petroleum ether for two minutes suffices to remove practically all traces of thymol.

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[5] New York Med. Jour., 1904, p. 403.

[6] Engelmann's Arch f. Physiol., 1902, suppl., p. 262.

[7] Welker: New York Med. Jour., 1907, p. 552.

Since thymol is occasionally administered internally as a vermifuge in cases of ankylostomiasis, the question arose as to whether urine excreted under such conditions may not, on account of the presence of thymol derivatives, give a positive response to Heller's test, even in the absence of serum protein. Accordingly, a medium-sized dog was given 5 grams of thymol by mouth. The urine excreted during the succeeding twenty-four hours showed the familiar brownish-yellow color, which on standing gradually became black. Heller's test was positive, but, as the precipitate that was produced had the same color as the urine, differentiation was almost impossible. To overcome the difficulty, different metabolism derivatives of thymol,[8] e. g., thymosulphuric, thymohydrochinon sulphuric and thymoglycuronic acids were isolated from the urine in the form of their chlorine substitution products. A small quantity of each of these substances was then individually added to normal urine, which in turn was subjected to Heller's test. The treated urine in each case showed a positive reaction. Agitation of this urine with petroleum ether in the manner above indicated did not extract the compound of thymol with glycuronic acid. This fact is of some importance, for, while petroleum ether readily extracts thymol from urine to which it has been added as a preservative, it does not do so when this drug has been given internally and is excreted through the kidneys.

I may add that Robert's modification of Heller's test —consisting in the substitution of a mixture of one volume of concentrated nitric acid and two volumes of a saturated aqueous solution of magnesium sulphate for the concentrated nitric acid—produces a thymol ring in thymolized urine which is characterized by the absence of the color phenomena caused by the concentrated acid alone, and is therefore much more readily mistaken for an albumin ring. However, extraction with petroleum ether will guard against this error.

I am much indebted to Prof. William J. Gies for his valuable suggestions and active interest in this investigation.

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SOME EXPERIENCES WITH THE OATMEAL DIET IN THE TREATMENT OF DIABETES MELLITUS

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The feeding of diabetics with large quantities of a single carbohydrate (oatmeal, rice, potato, milk) has been practiced with occasional success for many years; when carefully controlled and when employed in properly selected cases this method is a useful and often indispensable adjuvant to the treatment; when applied promiscuously it is dangerous. Because it is not a routine measure applicable alike to all types of diabetes it has not become popular.

As a preliminary step the type of diabetes must be established. I have found the following clinical classification to be convenient and useful.

CLINICAL TYPES OF DIABETES

Type 1.—In cases of this type the sugar disappears within two days after complete withdrawal of carbohydrates; this type, of course, includes patients who retain a small tolerance, i. e., that fail to pass sugar even when 100 or 150 grams of white bread or its equivalent[1] are administered.

The cases of Type 1 that occur in very young and in very old people possess special clinical significance. In the young patients the outlook is always more serious and they almost invariably develop the severe type unless the greatest care is exercised. In the old patients, in whom the diabetes is usually associated with obesity, gouty manifestations or arteriosclerosis, the outlook, on the other hand, is especially favorable as far, at least, as the development of severe degrees of diabetes is concerned.

Type 2.—The sugar can not be made to disappear until the patients have been on a strict, that is, carbohydrate-free, diet for at least two to three weeks. Here three subgroups can readily be distinguished:

In Group 1 there occurs with the gradual reduction and final disappearance of the glycosuria a general improvement in the condition of the patient, an increase in weight, a reduction of the acetone bodies of the urine to the normal.

In Group 2 there is an initial loss of weight, a general feeling of malaise and weakness, and the acetone bodies are excreted in increased quantity. With the complete disappearance of the sugar, however, the weight again increases, the patients recover their sense of well-being and the acetone bodies are reduced to normal.

In Group 3, finally, the condition of the patient becomes aggravated at once and, while the sugar excretion may decrease or the glycosuria disappear altogether, the patients rapidly lose weight and strength and develop alarming degrees of acidosis with a correspondingly large excretion of acetone bodies. Such patients, too, often develop digestive disorders and in unfortunate cases relapse into coma if the strict diet is persisted in. It is clear that they form a transition to the third or severe type of diabetes.

Type 3.—The sugar does not disappear from the urine even if a carbohydrate-free diet is given for many weeks consecutively, showing that these individuals are unable to consume even that proportion of sugar which is generated within their own tissues from the disintegration of the body albumins. Reduction of the food albumins often causes a disappearance of the sugar in the urine, but resumption of the normal proteid ration promptly causes its reappearance. The patients of Type 3 usually excrete large quantities of acetone and its congeners and rapidly emaciate, even if the caloric intake is carried far above the normal limit.

TYPES SUITABLE FOR THE OATMEAL TREATMENT

The "Von Noorden oatmeal cure" is worse than useless in the mild cases of the first type, occurring in adults or in senile individuals. These patients respond to the ingestion of large quantities of oatmeal by an increased glycosuria and very often by severe digestive disturbances.

The method is also harmful in Groups 1 and 2 of the second type of diabetes. I have seen cases of medium

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S. Blum, Ztschr. f. physiol. Chemie, xvi, p. 514.

[1] The carbohydrate contained in 100 gm. of white bread is approximately equivalent to the carbohydrate in: 120 gm. of rye or graham bread; 200 gm. of aleuronat or gluten bread; 70 gm. of zwieback; 80 gm. of chestnuts (peeled); 80 gm. of flour (wheat, rye, barley, buckwheat); 70 gm. of rice; 70 gm. of noodles or macaroni; 70 gm. of oatmeal; 120 gm. of dried peas, beans, lentils; 200 gm. of green peas; 360 gm. of new potatoes; 280 gm. of old potatoes, etc.

severity which would, in my judgment, have been converted into very mild cases with a high carbohydrate tolerance by judicious feeding, but which were converted by oatmeal feeding into severe types and remained so; it seems that in these cases the overtaxation of the carbohydrate metabolism produces irremediable and permanent damage.

In the juvenile cases of Type 1, as well as in adolescent cases of the severe Type 3, the method is distinctly useful; here brilliant results, not obtainable, I am convinced, by any other method of feeding, are occasionally observed.

Adults, in cases of the very severe type, do not respond so well to the oatmeal treatment. If certain precautions, to be presently specified, are observed, however, no harm can accrue from a trial. In view of the *inefficacy of the ordinary methods of diabetic treatment* in this type and in view of the occasional improvement derived from oatmeal feeding, the plan should at least be tried.

Whereas in juvenile patients, however, no valuable time should be wasted with preliminary attempts to modify the course of the glycosuria by the ordinary strict diet and the administration of the oatmeal diet should be begun as soon as possible after the discovery of glycosuria, in adults oatmeal feeding should be regarded as a last resort and should be employed only when all other means, after persistent trial, have been found to be inefficacious.

PRACTICAL POINTS IN OATMEAL FEEDING

The technic of the von Noorden oatmeal cure has been so often described in other places[2] that it is unnecessary to explain the method here. I have found it quite superfluous, even disadvantageous, to administer the oatmeal in the unpalatable and thoroughly distasteful form originally proposed by von Noorden. Two hundred and fifty grams of oatmeal, 250 grams of butter, half a dozen eggs and salt can be combined in *many other ways than as a very fatty porridge or soup.* In very small children the gruel method is probably the simplest, and they object to it less than do adolescents or adults. In older individuals it requires an immense amount of will-power to live for days on the oatmeal porridge given every few hours with nothing to relieve the monotony but a little black coffee or some claret, whiskey, or brandy and water.

It is much easier and safer to begin the oatmeal cure than to stop it. The change of diet in the beginning must be abrupt, i. e., *nothing whatsoever must be given* but the oatmeal mixture. It is unnecessary, as a preliminary step, to attempt reduction of the glycosuria by a strict diet, although as a rule the patients will have been on a strict diet before the oatmeal treatment is begun; this, in my experience, is detrimental rather than otherwise.

In patients reacting favorably to the oatmeal diet the resumption of a general diet or of a meat-fat-vegetable diet must be very gradual. For a long time, often months, after the exclusive oatmeal feeding has been stopped, oatmeal should still remain the only carbohydrate eaten, and other starchy pabulum should be very carefully administered. It is especially precarious to mix carbohydrates after an oatmeal course.

Animal proteids should always be resumed with care; for I have found that particularly those patients who respond well to the oatmeal treatment exhibit a marked *intolerance for meat, fish and poultry;* so that even in the most favorable cases, but especially in cases in which the sugar and acetone bodies did not disappear but were merely reduced, *the addition of animal proteids is promptly followed by an increased glycosuria* and an increased excretion of acetone bodies.

The oatmeal diet occasionally does harm, particularly if its administration is persisted in when improvement in glycosuria, polyuria, acetonuria, thirst and hunger and strength fails to appear within five days. It is a good rule, therefore, and a safe one, to give up the oatmeal attempt at the expiration of this period unless such improvement has become clearly manifest. In my earlier experience, as expressed elsewhere, I have seen a reduction in the tolerance for carbohydrates, quite alarming degrees of acetonuria and severe digestive disturbances appear if oatmeal feeding was persisted in for longer than five days in cases in which the patients did not respond favorably within this period.

As a precautionary measure against acidosis, from two to four teaspoonfuls a day of sodium bicarbonate, either alone or mixed with equal parts of magnesia usta, should be given throughout the oatmeal treatment. I also administer 10 grains of pancreas powder with one grain of sodium glycocholate four times a day during the period of exclusive oatmeal feeding. No laxative is ever *needed, the oatmeal and the fat effectively promoting* good bowel evacuations.

SUMMARY OF RESULTS IN CHILDREN

The most brilliant results are obtained in children, particularly if the oatmeal cure is administered as soon as possible after the diabetes is discovered. I have seen in the last five years three cases of diabetes *in children* (see below) within two or three weeks *after the first* symptoms of diabetes were discovered. And these three children, after a lapse of from three months to three and one-half years, are altogether well, one on a general diet, one on a partially restricted diet, one (the most recent one) on a diet still incorporating no other carbohydrate than oatmeal.

In cases of diabetes of longer duration children below 15 years, in my experience, do not fare so well. Of eleven children, with a diabetes of longer standing, varying in age from 7 to 14 years (whom I either treated myself or in whom I advised the oatmeal treatment) *who were fed on the oatmeal diet* as a last resort and who had been fed for periods of several months before with a strict diet, not one is even symptomatically well to-day. Seven of them have succumbed to coma, one to intercurrent tuberculosis, three are still alive, but none of them sugar-free.

SUMMARY OF RESULTS IN ADOLESCENTS AND ADULTS

In adolescents and adults the results have, on the whole, been favorable rather than otherwise. In so far as the mild cases of Type 1 (see above) and certain cases of Type 2 are excluded as altogether unsuitable from this summary, there remain only a limited number of severe, usually quite old, cases of diabetes to be considered.

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[2] von Noorden: Bemerkungen zur Pathologie und Therapie des Diabetes Mellitus, Wien. med. Presse, 1902, No. 40; Ueber Hafer- Diabetes Mellitus, Wien. med. Presse, 1902, No. 40; Ueber Haferkuren bei schwerem Diabetes Mellitus, Berl. klin. Wchnschr., 1903, No. 36.

Croftan: Some Practical Points in the Dietetic Management of Diabetes, Therap. Gaz., April, 1906; Clinical Therapeutics, ed. 2, 1906, p. 129 ff.

Herrick, James B.: The Oatmeal Diet in the Treatment of Diabetes Mellitus, The Journal A. M. A., March 14, 1908, L, 861.

In no adolescent patient have I seen permanent cessation of the glycosuria in the sense, namely, that a general diet could safely be resumed. In a considerable number of the cases the oatmeal diet, however, produced a decidedly favorable effect, and when persisted in led to a complete disappearance of the sugar, without much acetonuria, a result that had been impossible to obtain by any other method of feeding; associated with these changes was often a marked gain in weight and strength and a disappearance of the most distressing general symptoms of severe diabetes and of certain of the complications (neuralgias, furunculosis, constipation, itching).

None of these patients maintained their improvement when abundant proteid feeding was resumed. In so far as continuous feeding with the oatmeal diet is impossible, and in so far as in several of the cases the oatmeal ceased to be so well tolerated after several weeks as at first, this improvement is only relative; nevertheless, it is an improvement, a much-to-be desired one, and one, in my judgment, not obtainable by any other means.

Even when the oatmeal diet was administered within two or three weeks after the discovery of the diabetes in adults or adolescents suffering from types suitable for this treatment, no such good results as those occasionally obtained in children under similar conditions have ever, in my experience, been observed.

REPORTS OF THREE CASES OF DIABETES IN CHILDREN

CASE 1.—Mary P., referred by Dr. W. B. Irish of Pittsburg, aged 8 years 6 months. Without any premonitory symptoms the child developed lassitude and "crankiness," with great hunger, thirst and polyuria, was taken to her physician on the third day after the onset of these symptoms and the urine found to contain abundant sugar, diacetic acid and acetone. Twenty-four hours' quantity passed on the day following was 4,200 c.c. I saw the child four days after the discovery of the diabetes, i. e., seven days after the appearance of the first symptoms. For four days a strict diet had been followed. Urine analysis of the quantity collected from the seventh to eighth days: Quantity, 4,400 c.c.; specific gravity, 1,038; sugar, 68 grams; ferric chlorid reaction positive; acetone, 4.1 grams. Weight, 59 pounds 4 ounces (loss of 2 pounds 4 ounces from the third to the seventh day). The oatmeal diet was at once administered to the exclusion of everything else, and the accompanying table shows the sequence of events. I heard from the child's parents about a year and a half later; she had then been on a general diet for several months, only sweets and candies being excluded. A urine sample revealed normal conditions. The family has since then lived in Europe and I have lost track of the case.

TABLE 1.—CASE 1

Date.	Total Urination.	Spec. Grav.	Sugar. %	Sugar. Gm.	FeCl Reaction.	Acetone.	Body Weight. Lbs.	Body Weight. Oz.	Diet.
May 12, 1904.........	4400	1038	1.54	68	+	4.1	59	4	Strict diet.
May 13, 1904.........	4100	1040	1.17	48	+	3.8	57	6	Strict diet.
May 14, 1904.........	3600	1018	0.65	23.4	+	2.1	56	4	Oatmeal diet.
May 15, 1904.........	3800	1015	0.305	11.6	+	0.8	56	8	Oatmeal diet.
May 16, 1900.........	1480	1009	0.14	2.1	+	0.22	57	0	Oatmeal diet.
May 17, 1904.........	1620	1014	0.27	0.4	+	0.06	56	9	Oatmeal diet.
May 18, 1904.........	720	1005	0.0	0.0	+	0.07	58	1	Oatmeal diet.
May 19, 1904.........	2100	1010	0.0	0.0	+	0.12	58	8	Oatmeal diet.
May 20, 1904.........	1600	1014	0.0	0.0	0	0.11	59	8	Oatmeal, "allowed vegetables."
May 21, 1904.........	1620	1012	0.0	0.0	+	0.09	60	4	Oatmeal, "allowed vegetables."
June 2, 1904.........	1480	1016	0.0	0.0	0	0.08	62	1	Oatmeal, "allowed vegetables."
June 15, 1904........	1540	1014	0.0	0.0	0	0.10	63	4	A little meat, fish, poultry, "allowed vegetables," oatmeal.
July 20, 1904.........	1220	1020	0.0	0.0	0	0.03	64	4	
August 14, 1904......	1420	1018	0.0	0.0	0	0.11	67	3	
September 10, 1904....	1580	1018	0.0	0.0	0	0.12	68	1	
December 20, 1905....	1600	1018	0.0	0.0	0	0.02	76	4	General diet, with exclusion only of sugar and sweets.

TABLE 2.—CASE 3

Date.	Total Urination.	Spec. Grav.	Sugar. %	Sugar. Gm.	FeCl Reaction.	Acetone.	Body Weight. Lbs.	Body Weight. Oz.	Diet.
October 18, 1908......	....	1030	2.5	....	+	1.4	64	8	Strict diabetic diet.
October 19, 1908......	1410	1030	3.2	45	+	2.02	66	0	Strict diabetic diet.
October 20, 1908......	2610	1030	2.5	65	+	1.7	66	6	Strict diabetic diet.
October 21, 1908......	2040	1020	2.0	40.8	+	1.2	66	0	Oatmeal diet.
October 22, 1908......	1010	1015	1.0	10.1	+	0.7	65	8	Oatmeal diet.
October 23, 1908......	690	1010	0.4	2.7	+	0.21	65	7	Oatmeal diet.
October 24, 1908......	1050	1010	0.0	0.0	+	0.14	65	7	Oatmeal diet.
October 25, 1909......	1350	1005	0.0	0.0	+	0.19	65	9	Oatmeal diet.
October 26, 1908......	1260	1013	0.0	0.0	+	...	65	10	Oatmeal diet.
October 27, 1908......	2520	1009	0.0	0.0	+	0.31	67	0	Oatmeal diet.
October 28, 1908......	2520	1007	0.0	0.0	+	0.02	66	4	Oatmeal diet.
October 29, 1908......	1440	1010	0.0	0.0	+	0.02	65	8	Oatmeal diet.
October 30, 1908......	1470	1010	0.0	0.0	+	0.07	67	1	Oatmeal diet.
October 31, 1908......	2900	1010	0.0	0.0	0	0.03	68	5	Oatmeal diet.
November 1, 1908.....	3150	1010	0.0	0.0	0	0.11	67	8	Oatmeal diet plus 1 lb. steak.
November 2, 1908.....	2250	1015	0.95	21.37	0	0.14	67	8	Oatmeal diet.
November 3, 1908.....	3060	1010	0.16	4.89	+	0.42	68	0	Oatmeal diet.
November 4, 1908.....	2010	1011	0.0	0.0	+	0.10	68	2	Oatmeal diet.
November 5, 1908.....	1920	1009	0.0	0.0	+	0.06	68	0	Oatmeal diet.
November 6, 1908.....	2160	1010	0.0	0.0	+	0.06	67	4	Oatmeal diet.
November 7, 1908.....	2010	1012	0.0	0.0	+	...	67	8	"Allowed vegetables."
November 9, 1908.....	1600	1014	0.0	0.0	+	0.02	68	1	Left hospital.
November 13, 1908....	1820	1012	0.0	0.0	0	0.01	68	0	Oatmeal and vegetables.
November 20, 1908....	1490	1016	0.0	0.0	+	0.02	70	1	Oatmeal and vegetables.
November 27, 1908....	1240	1016	0.0	0.0	0	0.11	71	0	Oatmeal and vegetables.
December 5, 1908.....	1400	1020	0.0	0.0	0	0.09	71	8	100 gm. oatmeal, fat, vegetables and a little meat, fish or poultry.
December 17, 1908....	1240	1016	0.0	0.0	0	0.03	73	2	
December 23, 1908....	1640	1018	0.0	0.0	0	0.12	73	8	
December 29, 1908....	1520	1020	0.0	0.0	0	0.08	74	1	
January 16, 1909.....	1580	1019	0.0	0.0	0	0.14	77	8	50 gm. oatmeal; no other starchy food; vegetables, a little meat, fish, poultry, plenty of fat and a little alcohol each day

CASE 2.—This case was also seen by Dr. J. B. Herrick, who administered the oatmeal diet; he has published a report of the case *in extenso* in his excellent article[2] on "The Oatmeal Diet in the Treatment of Diabetes Mellitus," and I abstract the essential parts of his report as follows:

Elizabeth B., aged 10, referred by her father, Dr. B. of Iowa, suffered slight indisposition with a little temperature, some epigastric tenderness and a faint icterus. Six weeks later she became thirsty. Urine examination at this time: 4,000 c.c.; specific gravity, 1,040, with a large amount of sugar. The child was brought to Dr. Herrick Dec. 27, 1906, and the oatmeal diet begun at once. Jan. 2, 1907, the urine for twenty-four hours was 1,000 c.c. and sugar-free. The sugar entirely disappeared after three days of the oatmeal diet.

On January 14 it was determined that no sugar had been present from January 1 to June 1; then for three days there was a little sugar, which again promptly disappeared on the oatmeal diet. The patient weighed 70 pounds, felt strong and was attending school. Daily examination of the urine had been made for six months and Nov. 20, 1907, the father reported that, barring the occasional appearance of a little sugar in the tests that were made every day, the child was apparently well, the sugar never being present for more than three days at any time since ten months ago. "She is eating gluten bread twice a day and buckwheat cakes for breakfast; fruit and nuts as she cares for them; meat and eggs, all we can induce her to take; no milk except cream in weak tea or weak coffee."

Dr. Herrick expresses himself as follows in regard to the case: "This result is, it seems to me, remarkable. It is better than any other obtained by me in the case of diabetes in a child on other diets. One can not say that recovery has occurred; one may join with the father in hoping for it. But an amelioration of symptoms with such a marked general improvement would stamp the treatment that was efficacious in bringing about such an effect as a most valuable one.

"I am sure Dr. Croftan, who also saw this patient, will agree with me in ascribing to the oatmeal treatment the sudden checking of the onward progress of the disease; and this must be one of the cases that has induced him to say:[3] ' . . . No case of juvenile or adolescent diabetes should be deprived of the benefits of the oatmeal cure.'"

Case 3.—Jennie M., aged 10 years, 1 month, was referred by Dr. A Schirmer, Chicago. Sugar was first discovered Oct 8, 1908, following symptoms of general weakness, peevishness, loss of appetite, great thirst for two weeks preceding first visit of Dr. Schirmer. From October 8 to October 18 strict diabetic diet was given. On this régime the child continued to lose weight, grew weaker, polyuria increased and urine remained 'loaded with sugar."

She was referred to me Oct. 18, 1908, and was sent to Michael Reese Hospital. Strict diabetic diet for forty-eight hours Sugar excretion during the first twenty four hours was 45 grams; during the second twenty-four hours, 65 grams. (For other urinary findings, see Table 2) October 21 the patient was put on oatmeal diet The sugar excretion on four succeeding days was as follows: 40.8 grams, 11.1 grams, 2.7 grams, 0 grams. Under exclusive oatmeal diet for eight days the urine remained sugar free. The addition of one pound of beefsteak to the diet caused the reappearance of sugar, 21.37 grams Strict oatmeal diet caused the urine to become sugar free again in two days. Several vegetables and a little fish, poultry and beef were now added to the diet, the oatmeal at the same time being reduced The urine has remained sugar free ever since The acetone bodies have been reduced to normal figures The child to day (Jan. 16, 1909) weighs 77 pounds 8 ounces as against 64 pounds 8 ounces three months ago. feels well and strong on a diet containing about 50 grams of oatmeal, about 200 grams of meat, fish or poultry, 25 grams of bread, 25 grams potato, and other "allowed" vegetables *ad libitum.*

100 State Street

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[3] Clinical Therapeutics, ed 2, p 130

Antibodies in Persons with Hydatid Cysts.—The *Revista de la Sociedad Med Argentina*, xvi, 624, 1908, contains an article by Apphatie and Lorentz reporting the discovery of specific antibodies in the blood serum of persons with hydatid cysts. Their experience indicates that the presence of these antibodies confirms or excludes hydatid affections, and that their absence excludes hydatid disease. They applied the hemolytic test with the ordinary technic, following the directions of Bordet and Gengou The reaction was positive in everyone of the twenty-five cases examined, while the findings were equally constantly negative in 117 control individuals.

INDURATIVE HEADACHE

(SCHWIELENKOPFSCHMERZ) WITH REPORT OF THREE CASES

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* Indurative headache is of organic origin, chronic and usually paroxysmal, occurring in various parts of the head, and due to infiltrations or thickenings at various points, chiefly in the muscles of the head and neck. From the so-called cases cephalalgia, cephalodynia, migraine, hemicrania, cranial neuralgia and neuritis, many can be separated as belonging to this class.

A search made through works of neurology and monographs on headache by American physicians found little or no mention of headache due to these indurations. The subject seems neglected, except for the statement that headache is sometimes rheumatic, lithemic, or gouty in origin. The condition is ably treated, however, by Professor Edinger[1] and by Professor Norstrom,[2] of Stockholm, who spent some time in New York and while there wrote on this subject. The significance of this condition has been recognized for years by physicians abroad, notably by the Swedes and Germans.[3] In writing on headache due to organic disease, Edinger makes the astonishing statement that, though indurative headache is almost unknown, it is probably the most frequent form of this disease.

CAUSE

In studying the cause of this condition we find that at the insertions or within the bodies of the muscles of the head and neck there appears a thickening which comes and goes at first and later becomes chronic, and which gives rise to stimulation or irritation of the sensory nerve fibers, thereby causing pain. Given, then, this chronic condition, a paroxysm may be brought on by emotional disturbance, physical or mental fatigue, sudden exposure to cold, as a chilling draft, insufficient drying after washing the hair, a stay in badly ventilated places, as the theater, by the approach of damp and chilly weather or storms. As Dr. Mitchell[4] wrote, "It is only required to come within the outer limits of storm conditions. The sky may be cloudless and the rain or cloud areas two or three hundred miles away and yet the sufferer be within the area of barometric depression. It was not needed that there be rain." The condition varies with seasons, being least common in summer and most frequent in fall and spring.

It is not the purpose of this paper to enter into the consideration of the pathologic chemistry of these swellings for after much investigation the chemistry of gout, lithemia, uricacidemia and allied conditions is still far from being satisfactorily defined. These infiltrations or thickenings actually exist and give rise to a chronic myositis at the points of their lodgment. They are found present in three stages: 1. A swelling. This is of a soft, yielding consistency and is frequently present in the bodies of the muscles, where a puffiness is often noticed. 2. A slightly elastic resistance offered to the touch as though some organization had taken place. 3. Induration. There is an absence of elasticity and organization has advanced to the stage at which a substance of cartilaginous consistency presents itself to the examiner. The older these thickenings are the firmer they have become and the more resistance they offer to treatment.

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* From the Department of Neurology of the University of Pennsylvania

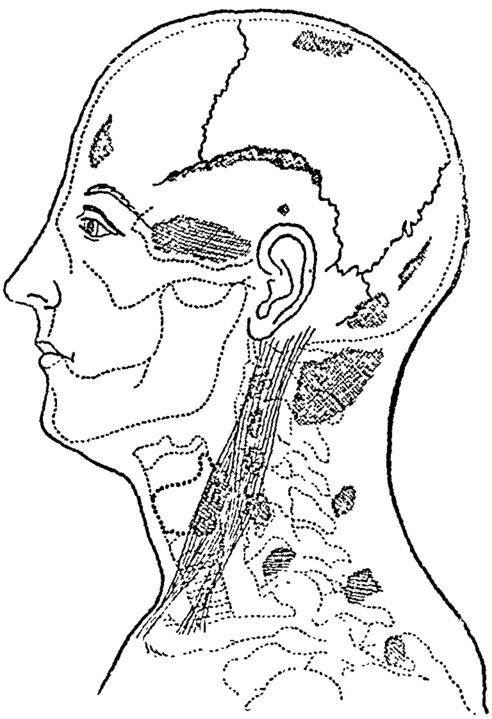
[1] Edinger In Diseases of the Nervous System, translated from Die Deutsche Klinik, Appleton & Co, New York, 1908

[2] Norström Der chronische Kopfschmerz und seine Behandlung mit Massage Leipsic, 1903 Le migraine, traitement par le massage, Paris, 1904, Baillière & Fils; New York Med Jour, 1905, lxxxii

[3] Reidel Der Kopfschmerz und seine physikalische Behandlung, Berl klin Wchnschr, 1907 xliv, 338, Kleen Handbook of Massage, P Blakiston's Son & Co, Philadelphia, 1892

[4] Mitchell Relation of Neuralgic Headache to Storms, Tr. Coll. Phys Philadelphia, 1903, xxv, 71.

These indurations appear again and again for some time before becoming chronic, and they are by no means confined to the head and neck. Other haunts of this insidious invader are the points where the gracilis, sartorius and semitendinosus muscles cross the inner side of the knee, at the inner and outer aspects of the ankle, at the insertions of the pectoralis major and latissimus dorsi into the humerus, the muscles of the abdominal wall where there are occasionally found little nodules which feel like small grains of shot, and which give rise to sharp pain on slight movement. In one obscure case of this kind the patient was suspected of having appendicitis. So-called cases of sciatica have ceased after the removal of these infiltrations around the gluteal and sacral regions. Deafness has been produced by the pressure of these swellings on the Eustachian tubes, and hearing has been restored after appropriate treatment. By far the most frequent site of these accumulations is in the muscles of the head and neck, and I believe that this is due to the fact that this is a much exposed part of the body. These indurations are probably the chief cause of the so-called rheumatic throat, but I do not believe any of these conditions are due to gout, for a paroxysm of gout, such as frequently involves the metatarsophalangeal articulation of the great toe, gives rise to marked redness and fever. An attack of lumbago does, however, present a strikingly similar picture, inasmuch as it frequently follows exposure to dampness or cold. After a number of acute attacks it may become chronic, offering considerable resistance to palpation, and it may give rise to a dull ache or sharp pain. It is relieved by local pressure. There is no redness and fever present, and it will yield to the same treatment employed in the removal of these indurations.



The most common sites of indurations. (Drawing modified from Edinger).

SYMPTOMS

The symptoms are of two groups—those of the chronic condition and those of the paroxysm. In the development of these pains, they are at first slight and infrequent; gradually they occur more often, are of greater severity and of longer duration. Sometimes they are of the nature of a dull ache and almost constant; again they may be sharp in character. Local pressure often affords relief, but if an actual neuritis is present the suffering will be intensified by pressure. These patients are very susceptible to colds, subject to depression of spirits and mental torpor and frequently there are associated symptoms in other parts of the body, some of which are gastrointestinal disturbance, toxemic in character, painful spasms of the calf muscles, an occasional attack of nephritic colic, myalgia in many different parts of the body, and the oral cavity may give manifestations in the form of hypersensitiveness of the teeth and pyorrhea alveolaris. It is probable that all these local conditions are but different manifestations of the same general disturbance of nutrition. Many of these cases are neurasthenic and it seems likely that an excess of uric acid or an allied substance is concerned in the production of this condition. Before an attack of headache the enlargements become swollen and sensitive; the pain which develops a little later may be mild or agonizing. It occurs in various parts of the head, depending on the location of the enlargements; it is usually over the site of these areas, but there may be radiation of the pain. Fever and redness are absent.

All cases of headache should be examined by forcible flexions and twistings of the neck, which may bring out intense pain at the insertions or along the bodies of the neck muscles. The exploration may be made advantageously during a paroxysm, for at such a time the swellings are more apparent and their sensitiveness greater, so that points which might otherwise be overlooked are then easily detected. The head and neck should be thoroughly palpated in the following manner:

Moderately firm pressure should be employed over the entire scalp, where thickenings, irregularities, indurations and nodules may be found. These parts may be only slightly sensitive or they may be exceedingly so. The same condition is then sought at the insertions of the trapezius, scaleni, splenii and sternomastoid muscles. Hypersensitive points are often found around the base of the skull from one mastoid process to the other, on the spinous processes of the cervical vertebræ, and particularly on the transverse processes of the upper cervical vertebræ. The supraorbital region is often involved and the temporal muscle may be the seat of marked thickening. Any portion of the scalp may be thickened or nodular. Chronic glandular enlargement due to irritation produced by proximity to these accumulations is sometimes present and congestive headache may be produced by the circulation being retarded through pressure from these swellings on the veins. This ceases after the dispersement of the enlargements.

DIAGNOSIS

In the diagnosis of a severe paroxysm with agonizing pain in the head and back of the neck, this condition may be mistaken for meningitis, but here fever is present and the indurations and hypersensitiveness absent. In migraine there is frequently a sensitive aura, painful and hypersensitive areas are absent, while nausea and vomiting are present. Hereditary migraine begins in early youth; indurative headache appears in later life, and, finally, migraine is unrelieved by massage. Indurative headache may, of course, develop in persons subject to migrain. Neuralgia and neuritis may result from these thickenings. Cases of hemicrania frequently belong to this group of headaches.

TREATMENT

Under efficient treatment, which will take from one to three months, these enlargements can usually be removed. There are a few cases of induration of such marked cartilaginous consistency and of such long standing that only amelioration can be effected.

Persons in whom there is a tendency to these thickenings should take active exercise in the open air, drink water freely between meals, avoid overfatigue from excessive physical or mental activity and emotional excitement. If a relationship between this condition and uric acid is subsequently proved, the diet should be low in the percentage of purins; it should be nutritious, of easy assimilation and not too abundant; alkaline waters are useful; tea and coffee should be used only sparingly, and alcoholic beverages should be avoided. Internal medication does but little good unless a reconstructive tonic is indicated by general debility. Potassium iodid may give some relief in advanced cases. For a severe acute attack a brisk purgative should be given, a warm bath, hot dry applications to the affected part, and repeated large doses of sodium salicylate, aspirin (acetylsalicylic acid) or salophen (acetylparamidophenol salicylate). The removal of the thickenings will require from one to three months, and the measures given, in the order of their efficiency, are massage, vibration and galvanism. The galvanic current may possibly be made useful, the anode being placed over the affected area and the cathode at an indifferent point. Vibration by means of the electric vibrator helps to remove the thickenings and is conducive to more rapid absorption, but should not be used about the head in cases of arteriosclerosis. The most effectual means of removing these enlargements is without doubt massage. This is at first painful, but after a few treatments the hypersensitiveness disappears. During these treatments a local application of an ointment containing methyl salicylate and capsicum is of some benefit, the former drug acting by absorption and the latter doing good as a counter-irritant. Massage sometimes causes enlargement and tenderness of the lymph glands which receive lymph from the site of the swellings, but this soon subsides.

In all these cases the bowels should be kept active and it is not enough that they be opened daily; they must be emptied; this may be accomplished by the generous use of the laxative mineral waters. The treatment is complete when the swellings have disappeared and tenderness no longer exists.

Few patients are more grateful than those relieved of the sufferings from these agonizing and obstinate headaches.

REPORT OF CASES

I report three cases which, as far as I am able to determine, are the first reported by an American physician. The first history which I give is not from a case of my own, but from a patient whom it was my privilege to examine some weeks ago while he was under treatment.

Case 1.—*History.*—The patient was a lawyer, aged 40, who had had headaches since boyhood. For the last three years they had become very severe and had occurred as often as once or twice a week with a duration of one or two days. They were frequently brought on by work in the court-room and were so incapacitating that the patient thought at times he should have to relinquish the practice of law. He did not remember that they were affected by damp, wet weather, but recalled that while traveling in England they were very annoying and that he was free from them during a stay in Switzerland. The headaches were largely confined to the two temporal regions.

Examination.—The patient appeared anemic, poorly nourished, and of a color which suggested a sluggish liver. Cartilage-like thickenings were found on the transverse processes of the upper cervical vertebræ, marked enlargements offering considerable resistance at the insertions of the muscles around the base of the skull between the mastoid processes. Swellings were present in the sternomastoid muscles from the level of the thyroid cartilage to their clavicular attachments. Both temporal muscles were involved; they were thickened and very sensitive and it was to these areas that the headaches were largely limited.

Course of Disease.—The patient has now been under treatment every other day for two months, and during this time has only had four attacks, all of which were mild and of short duration. His general appearance has improved; there is an increase in weight and his work is now done without fatigue.

Case 2.—*History.*—The patient, aged 63, was formerly owner of a business college. He had suffered for years from pain in the back of the head and neck. He said that he had had several attacks of renal colic and frequently noticed a brick-dust sediment in his urine. He was very susceptible to cold and was much affected by damp, chilly weather. He was troubled with stiffness in the back of the neck, where he said he did not have proper use of his muscles. Because of poor health his business was disposed of a few years ago and he then spent some months in California, after which he was somewhat improved.

Examination.—The patient was rather poorly nourished and anemic. Forcible flexion and twisting of the neck caused intense pain in the back of that region. Areas offering marked resistance and sensitiveness were found over the transverse processes of the upper cervical vertebræ; the occipital portion of the occipitofrontalis muscle was thickened and painful, and there were two enlargements which were very painful on pressure on either side of the spine just below the seventh cervical vertebra.

Case 3.—I have myself suffered from this condition. I was free from headaches until 18 years of age, and since then have really suffered only during the last six years. A dull ache was often present but severe attacks have not occurred oftener than two or three times a month and have been most frequent and painful in the fall. Bad weather has often brought on a headache, as has my being in crowded and poorly ventilated rooms. Occasionally indigestion would be followed by an attack, but there was never any accompanying nausea or vomiting. I have frequently been troubled with a stiff neck and different portions of the trapezius muscle have often been painful on slight movement. My headaches were on the left side and were mainly limited to the temporal and supraorbital regions. For a long time I had noticed that with a headache the left supraorbital region was tender and swollen as well as painful. The left temporal region was always swollen and tender from the zygomatic arch to the temporal ridge. In the course of an attack, this swelling would increase so that the left arm of my glasses would cut a distinct furrow where it crossed this area. Two small patches of exceeding tenderness were present in the auricularis superior muscles just above the ears. During the paroxysms the headaches were constant, severe, and very depressing. They lasted from a few hours to two days and twice I was confined to my bed. Pressure over these areas always gave some relief. Local enlargements were also present causing distinct puffiness of the sternomastoid muscles on a level with the thyroid cartilage. Quick forcible flexion would cause pain at the cephalic insertions of the muscles along the superior curved line of the occipital bone. This line at the base of the scalp was always sensitive to pressure but there was never an ache in this portion of my head. It was not until last summer that I determined the cause of these headaches, since when, through massage and vibration, the swellings and sensitive areas have disappeared, and the pain has ceased.

THE VEINS IN THROMBOANGIITIS OBLITERANS

WITH PARTICULAR REFERENCE TO ARTERIOVENOUS ANASTOMOSIS AS A CURE FOR THE CONDITION

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In a paper read before the New York Pathological Society in March of last year, and then in a communication made to the American Association of Physicians in May, I proposed the term "thromboangiitis obliterans of the lower extremities" to designate a distinct group of cases formerly included by the Germans under the names endarteritis obliterans and *Spontan-Gangrän*. With the tremendous influx of Polish and Russian Jews into this country, we are now more than ever brought face to face with the perplexing question as to what can be done for these unfortunate patients. During the past two years I have seen more than 55 cases, have been able to collect clinical data on 44 of these, and have made pathologic studies on the vessels and nerves from 20 amputated limbs.

The history of the advent and development of the symptoms is very much the same in all the cases. Beginning in many instances with indefinite pains in the sole of one foot, in the ankle or in the toes, the patients soon notice that they are disturbed in their walk by the sudden onset of cramp-like sensations in the calf or elsewhere in the leg. These feelings make them take frequent rests, often inducing them to investigate the condition of their limbs. Some of them take off their shoes and rub the parts in the hope of either dispelling the pain or of getting rid of uncomfortable numbness in the toes and foot. Others say that the feet become cold and numb when the temperature is low and the weather is inclement.

After the lapse of weeks, months or even years, evidences of trophic disturbance make their appearance. After the cutting of a hang-nail, or without apparent cause, an abraded spot or a hemorrhagic bleb or even a dead dry patch of skin develops near the tip of one of the toes or under a nail. Now the local pain becomes excruciating during night as well as day so that many of the sufferers beg for the amputation of the affected part.

It is during the first attack of trophic disorder that the physician usually notices another characteristic symptom, namely, a peculiar blush of the toes and fore part of the foot extending to the ankle or slightly above when the limb is in a pendent position. When the limb hangs down the affected toe soon turns color; it assumes a bright red hue which is seen to pass to the other toes and then up the back of the foot for a variable distance, fading off toward the ankle or lower part of the leg. The elevated extremity, on the contrary, rapidly becomes blanched and the ischemia may persist even in the horizontal plane. Sometimes the superficial ulcer will heal under conservative treatment and the patient will either recover perfectly or his symptoms will become chronic. If we examine his limb in this period, we see the scars pointing to previous trouble; the dorsalis pedis and the posterior tibial artery usually fail to pulsate, and ischemia in the elevated position and redness or "erythromelia" (if I may be permitted to use the word) in the pendent position are regularly elicited. Sooner or later, however, be it in the extremity first affected or in the limb not yet diseased, an ulcer will give way to dry gangrene and amputation will be the issue.

Because of the striking condition of redness in the dependent position, and because of the increase of local pain when the limb is hanging down, a number of clinicians have been wont to diagnosticate "erythromelalgia" in these patients. Some cases have been regarded as examples of Raynaud's disease, because in them the symptoms of ischemia and cyanosis of the parts were prominent features. It is not my purpose to enter into a discussion on the differential diagnosis of these states, but I wish merely to point out that, although resembling erythromelalgia and Raynaud's disease in a number of symptoms, the clinical picture of thromboangiitis obliterans, as we see it, is so characteristic and definite that an attempt should be made to put it into a separate class.

If we keep in mind the pathologic lesions that belong to the vessels in this disease, we shall not hesitate long in concluding that unless something can be done to interrupt the rapidly progressing obliterating thrombosis, at its very inception, medical treatment can at best but alleviate some of the distressing symptoms. For the sake of clearness, let me briefly summarize the pathologic changes which I have described elsewhere.[1]

Studies of the vessels in the amputated limbs show the following: Most of the larger arteries and veins are obliterated over a large extent of their course. All stages in the occlusive change may occur in the various vessels of an extremity or in the same vessel in different parts of its course. The occlusion of the vessels is effected by red obturating thrombi; these become organized, vascularized and canalized. Recent red thrombosis may involve large portions of arteries or veins and is not secondary to the gangrenous process. It occurs even when no gangrene is present.

In short, we are dealing with vascular lesions of considerable extent, apparently initiated by the formation of occlusive thrombi, chiefly in arteries but not confined to these, followed by organization or healing, with an attempt at the production of sufficient collateral circulation.

When the patients consult us the lesions are usually profound. The absence of pulsation in the dorsalis pedis and posterior tibial arteries points to occlusion not only of these vessels but also to involvement of the plantars and possibly also to the closure of veins as well. Little wonder then, that our medical, mechanical and electrical treatments and radiotherapy and thermotherapy have done practically nothing for these patients. Medicines, including potassium iodid, mercury, fibrolysin, thiosinamin, nitroglycerin, are of no avail; light therapy, hot-air baths—all of these have been tried with but a very temporary and slight amount of relief from the most disturbing of the symptoms. I have purposely included mercury, since I have reason to doubt the statements of a certain number of observers who assert that injections of this drug have caused a cure in these cases. Quite a number of such cured patients have later fallen into my hands during exacerbation of their malady, and I have done the Gritti amputation on two patients who had been considered well after antiluetic régime.

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[1] Am. Jour. Med. Sc., October, 1908.

So, recognizing the futility of the employment of ordinary measures in the therapy of thromboangiitis obliterans, it seems incumbent on us to try those means that still give promise of success in this disease. The attempt to divert the arterial stream from more or less closed and diseased channels into patent veins has been successfully carried out both experimentally in the lower animals and clinically in man. As far as I know, the operation of arteriovenous anastomosis has been done four times for the condition under discussion with a successful result in but one case. In looking over the reports of these cases it occurred to me that it would not be amiss to record the results of my investigations on the condition of the veins in thromboangiitis obliterans. For it is evident that any attempt to throw the arterial blood into veins which are diseased and closed must result disastrously for the patient. And it is just this particular fact that has been overlooked by those surgeons who have suggested anastomosis, namely, that the veins are very frequently and rather extensively obliterated in thromboangiitis obliterans. It shall be my purpose, then, first, to outline briefly the state of the venous channels as they were found in nineteen amputated limbs; second, to discuss the probable condition of the vessels in certain cases in which no pathologic studies could be made; and, third, to indicate in what direction our clinical studies should lead us if we wish to be able to decide rationally when the operation of arteriovenous anastomosis should be performed.

Before entering on my first theme it may be well to indicate in a few words what has already been accomplished by arteriovenous suture in the disease under discussion. In 1907 Lilienthal[2] did an end-to-end anastomosis between the femoral artery and femoral vein, but his patient died thirty hours after operation. The cause of death was not known.

Wieting of Constantinople, in a paper on the operative treatment of "angiosclerotic gangrene," reports a successful case in which he intubated the femoral artery below the origin of the profunda, into the femoral vein below the termination of the saphenous. The saphenous vein, he says, carries the venous blood back into the proper venous channel and the femoral vein distributes arterial blood, the profunda being left to act as a collateral. Whereas the color of the foot was livid in the horizontal position, and cadaveric when raised just before the operation, the completion of the angiorrhaphy was followed by reddening of the toes and a distinct improvement in the patient's subjective symptoms. The coldness gave way to a feeling of warmth, and the pains and paresthesia are said to have disappeared at once. When seen two months after the operation (March 7, 1908) the foot was warm and there were no symptoms.

Wieting also gives a few incomplete data in reference to a third case in which the anastomosis was done in the popliteal region but with failure because of thrombosis.

Finally, F. B. Lund[3] reports a case of "obliterative endarteritis" temporarily improved by arteriovenous anastomosis. Gangrene, which was imminent before operation, soon became progressive, however, and amputation had to be performed. In a personal communication Dr. Lund tells me that the case was probably of the type which I call thromboangiitis obliterans, as shown by his recent pathologic studies of the vessels.

Directing our attention now to the lesions of the veins, we may consider these under two separate heads: the changes in the deep veins, especially the larger solitary veins and venæ comites, and the changes in the superficial veins. Both systems are of the utmost importance when arteriovenous anastomosis is done, the one for the arterial, the other for the return venous circulation. Although my study of the deep veins is fairly complete, having been based on the findings at autopsy of the amputated limbs, I am unable to give as extensive and anatomic account of the superficial vessels. For, strangely enough, these were more frequently diseased in those cases in which amputation has not as yet been necessary, and my data have been collected mostly from clinical observation and from the study of excised pieces.

The same pathologic changes that I have described elsewhere[4] as being so characteristic for the arteries occur also in the veins. Thus we meet with various types of occlusion depending in the main on the age of the obturating process. In Figure 1 is seen an example of very recent closure of a vein by a red thrombus, which has become adherent at one point. A more usual type of early thrombosis is exemplified in Figure 2, where a segment of a large vein is occluded by a mixed clot. This shows lamellated fibrinous masses in its center and a peripheral zone of organization bordering on the intima. In this zone three so-called "miliary foci" containing giant cells can be readily detected. A still older stage in which organization is complete and in which the lumen of the vein is filled with connective tissue, small capillaries and blood pigment, is shown in Figure 3. Later in the history of the case, when by virtue of the attempts to produce efficient collateral circulation, the small canalizing capillaries have widened, and the obturating connective tissue has ripened into sclerotic fibrous masses, we see the development of those pictures which have been so frequently mistaken for an "endarteritis obliterans." In Figure 4 such an old type is depicted.

In the veins, too, as well as in the arteries, the thrombosis seems to take place in attacks, for we not uncommonly encounter various stages of the process in the two venæ comites following an artery. A reference to Figure 5 will clearly illustrate this point. The posterior tibial artery and one vein have been obliterated for a long time, judging from the nature of the obturating tissue. The other accompanying vein shows very recent blockage, and a small additional satellite illustrates an intermediate type of thrombus organization. And, finally, in Figure 6 a portion of a vein is seen, in the canalizing or daughter vessels of which the same thrombotic process has recently occurred. This is shown by the foci of giant cells and fibrin and the marked cellular infiltration evoked by the thrombosis.

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[2] Ann. Surg., 1907, xlv, 1.

[3] Boston Med. and Surg. Jour., 1908, p. 683. I may also refer to Hubbard's three cases, Ann. Surg., December, 1908, which, however, do not fit in here, since the gangrene was of the senile arteriosclerotic type.

[4] Am Jour. Med. Sc., October, 1908.

I do not wish to go deeply into the minutiæ of the histologic changes, and have referred only to those features which seem of value in elucidating the nature of the process. For, from the standpoint of surgical intervention, we are more interested in determining the extent of venous involvement in the various cases than in the manner in which occlusion is brought about.

Reviewing the pathologic notes on nineteen amputated limbs, we find that, although the arteries were more or less affected in every case, obliteration of deep veins occurred in but seven of these, and closure of a large portion of the internal saphenous took place in one case. If we analyze these cases we learn that the thrombotic process in six of them concerned so many and such a large part of the venous channels that these certainly could not be regarded as possessing any advantages over the arteries for the requirements of an adequate circulation. In the table here appended I shall attempt to make this point clear.

Referring to the first seven cases in the table, we find that either one or both venæ comites of the posterior tibial artery were obliterated in every instance. Closure of the anterior tibial veins was less frequent, but the important external plantars were occluded in four out of the five cases in which they could be examined. Wherever I have indicated occlusion, a fairly large part or the whole course of the vessel showed the lesion. Without entering now into a discussion as to the theoretical requirements of the proposed new circulatory route, it is apparent that in six of the seven cases the existing venous channels were entirely inadequate.

What were conditions in the twelve cases in which the deep veins proved to be patent? Here, at least, the *sine qua non* for success in the establishment of an arteriovenous anastomosis, namely, wide and open efferent venous trunks, was present. Whether or not the other essential factors, soon to be discussed, obtained we shall determine in the analysis of the clinical pictures.

Having established the fact that the performance of vascular anastomosis could be rationally entertained in at least twelve out of nineteen patients, we must still answer the following questions: First, are there any other conditions that must be fulfilled before we decide on the procedure? Second, what information in regard to the state of the arteries and veins can we gain from our clinical studies

I have already alluded to the fact that both the superficial and deep venous trunks must be patent. Furthermore, the femoral artery must be absolutely free from any thrombotic process. Although this vessel is usually found to be pulsating at the groin, I have seen a number of cases in which the occlusive change had ascended so high that not the faintest suspicion of pulsation in the femoral artery could be detected. This, however, is rare

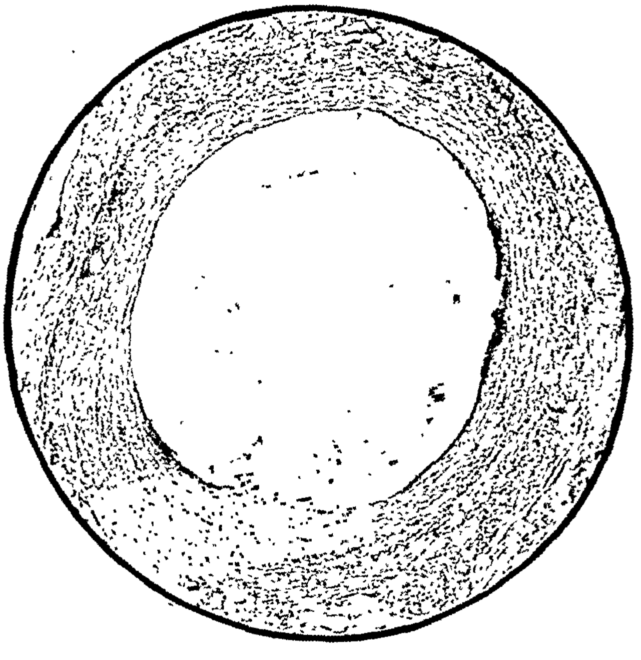

Fig. 1.—A vein showing recent clot; the thrombus has become adherent to the wall at one point. The changes in the media correspond in situation to the places at which organization of the clot is beginning.

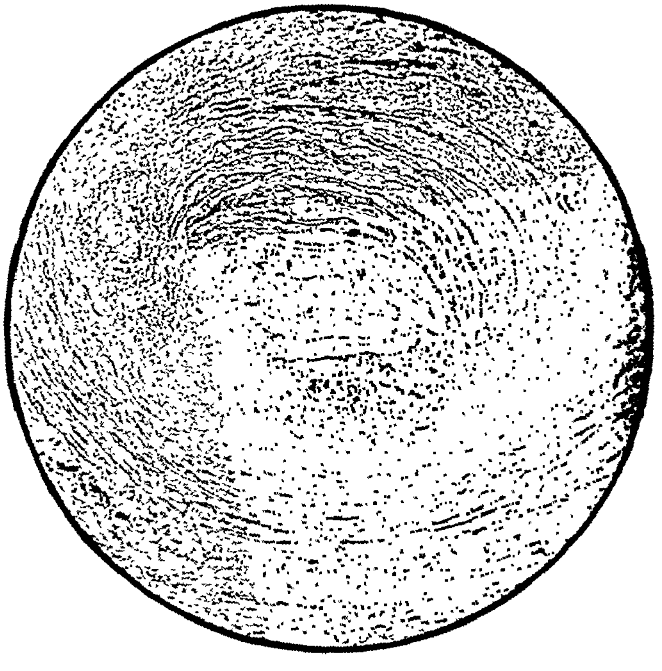

Fig. 2.—Recent thrombosis in a vein; about one-third of the cross-section shown. Below are the adventitia and media. The lumen is completely filled with recent clot undergoing organization at its periphery.

SCHEME OF OCCLUSION OF VESSELS IN EIGHT CASES OF THROMBOANGIITIS OBLITERANS *

Case	1			2			3			4			5			6			7			8†		
Patient	I. L.			I. L.			D. F.			N. L.			S. S.			A. S.			A. P.			J. C.		
	A.	V.	V.	A.	V.	V.	A.	V.	V.	A.	V.	V.	A.	V.	V.	A.	V.	V.	A.	V.	V.	A.	V.	V.
Popliteal	......			......			......			+	+		......			+	0	0	......			+	0	0
Post tibial	+	+	+	+	+	+	+	+	+	+	+	+	+	+	0	+	+	+	+	+	0	+	0	0
Peroneal	+	+	?	......			+	0	0	......			+	0	0		+		......			+	0	0
Ant tibial	+	+	0	+	+	+	+	0	0	+	+	+	+	0	0	......			+	0	0	+	?	?
Dorsal. pedis	+	+	?	+	+	0	......			......			0	0	?	......			+	0	0			
Dorsal. hall	?	+	?																					
Metatarsal	+	+	0	......			......			......			......			......			0	0	?			
Princeps hall	0	+	+																					
Ext. plantar	+	+	0	0	+	+	......			......			+	+	+	+	+	+	+	0	?			
Int. plantar	......			+	+	+	......			......			?	+	+	+	+	+	+	?	?			
Calcaneal	?	+	+																					
Saphenous vein	......			......			......			......				+		......			......				+	

* Explanation of table: Under the number of the case in each column are the initials of the name of the patient. A. = artery; V. = vein; + = closed; 0 = open; ? = not examined.

† In Case 8 there was no involvement of deep veins, but extensive obliteration of the internal saphenous.

and seems to occur especially when the disease is of many years' duration, or in patients in whom a low amputation had been performed. For in such cases the ablation of the limb had been done at a point at which the vessels were still occluded, and had thus failed to arrest the progress of the thrombotic process.

If we deflect the arterial current from the femoral artery into the femoral vein, below the termination of the long saphenous, we do so with a view to establishing the following conditions: (1) the deep veins are to be transformed into arteries; (2) the blood must find its way into the capillaries where it meets the blood from the profunda and collaterals; and (3) a new centripetal flow must be established, primarily through a set of interanastomosing deep venules, but in the main finding its way into the vast network of superficial veins that empty in the long saphenous and thus into the femoral.

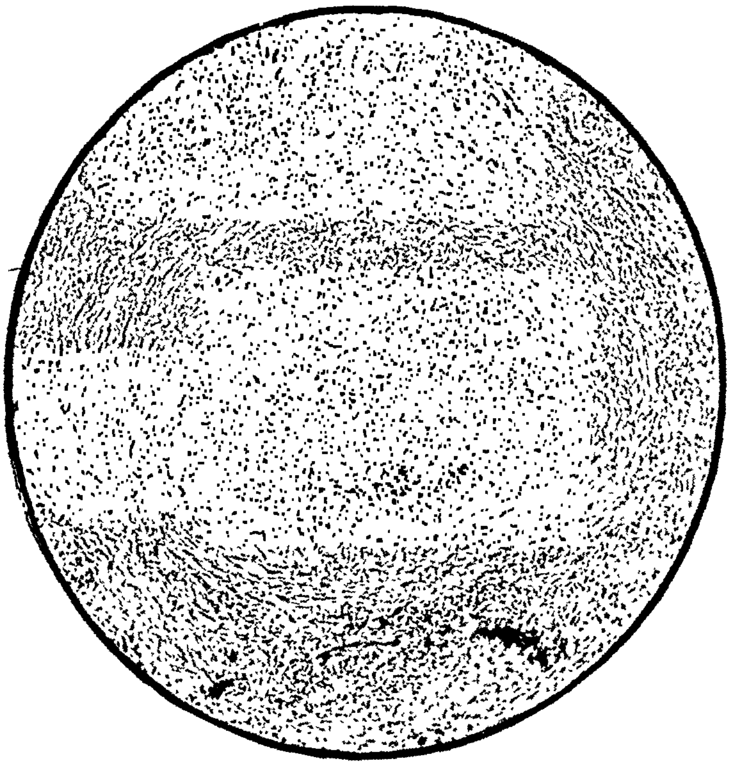

Fig. 3.—Obliterated vein. Closure of vein is of long standing. The media is infiltrated with round cells and capillaries; the lumen contains connective tissue, numerous capillaries, and blood pigment.

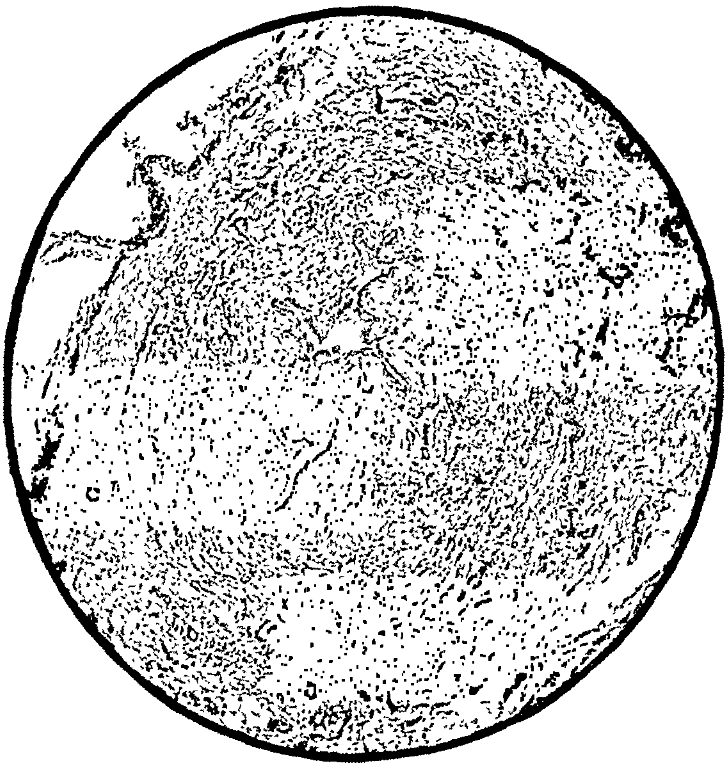

Fig. 4.—Type of old occlusion in a vein. The lumen is occupied by dense connective tissue enclosing blood spaces lined with endothelium, the result of *canalization and organization* of thrombus.

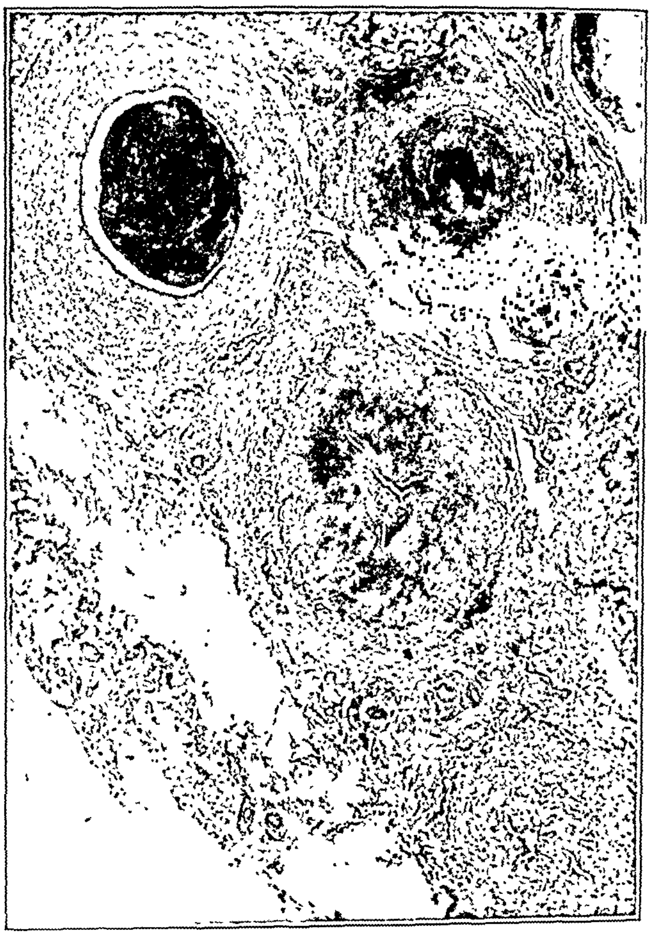

Fig. 5.—Artery and veins, showing various stages of the obliterative thrombotic process. Above, there are two veins, the large filled with very recent, the smaller with "intermediate" clot; in the center and below, an artery and vein are filled with sclerotic canalized tissue.

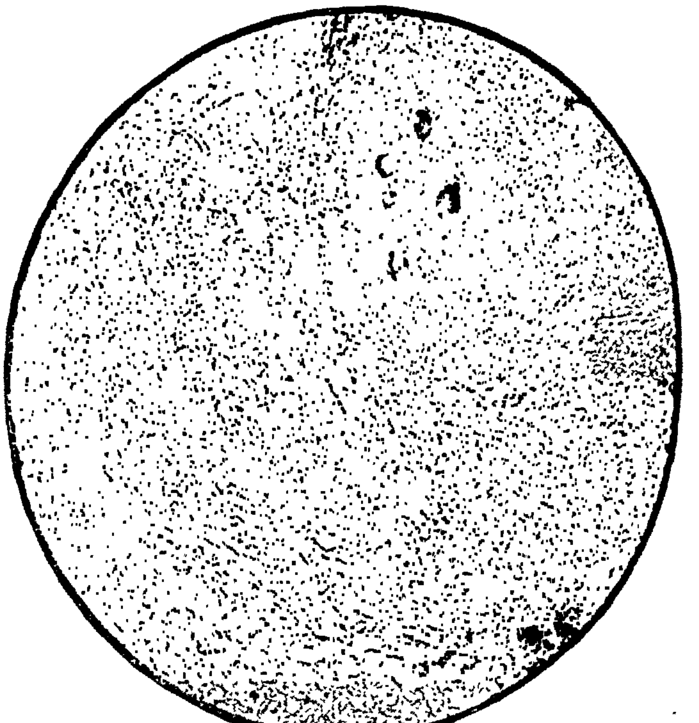

Fig. 6.—Recurring thrombosis in a large vein (popliteal). Only a portion of the cross section is shown. Below and to the left are the adventitia and media. The lumen is filled with connective tissue, many capillaries and larger blood sinuses and thick-walled "daughter" canalizing vessels. One of these is *recently thrombosed* and contains a miliary giant-celled focus.

A glance at the schematic diagram, Figure 7, impresses us at once with a number of doubts as to whether such new conditions can be obtained. The most important query that arises is, why the blood does not rapidly find its way into the superficial veins through the large anastomosing tributaries and then return without having been distributed to the tissues. This question is difficult to answer. However, in the light of the successful results that have been thus far reported in both animal and man, it would be foolhardy to cling to scepticism. Let us therefore rather try to explain just what readjustment of vascular flow must occur. Granted that the arterial blood reaches the tissues through the femoral, popliteal, anterior and posterior tibial and peroneal venæ comites, must not a large part enter the external saphenous vein and then be short-circuited into tributaries of the long saphenous and thus be carried centripetally by a short route? This certainly must occur. It would appear to me that this apparent complication or interference with the superficial veins as venous channels has certain advantages, at least in the period immediately following the anastomosis: for, through this short route, a back flow to the heart would be at once established, and the function of the superficial venous channels—with the internal saphenous as main efferent trunk — *as veins,* would be immediately determined. This accomplished, however, ligation of the external saphenous just below the popliteal would seem to be in order, so as to save as much arterial blood as possible for the nourishment of the limb. Whether or not ligation of the external saphenous is essential or whether it should be done immediately or some time after operation, experience alone can determine.

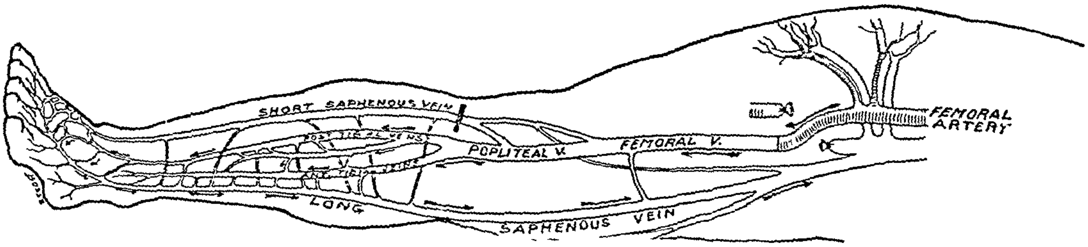

Fig 7—Schematic diagram, showing blood supply of leg.

I have already referred to the rôle of the superficial veins in the new circulation. Now that we have become orientated as regards the direction of the flow, it is clear that the importance of the tributaries of the long saphenous can not be overestimated. I mention this because my clinical studies have made me aware of the fact that *migrating phlebitis,* or *thrombophlebitis,* in the territory drained by this vessel is not an uncommon occurrence.

The association of attacks of thrombophlebitis involving superficial veins with the symptoms characteristic of thromboangiitis obliterans has been overlooked apparently, for I can recall no mention of it in the literature. In my own series there are records of the incidence of such phenomena in seven cases. It was not, however, until a fairly large number of patients had passed out of my hands that my attention was directed to this circumstance, and I feel therefore that a careful questioning of some of my old patients might elicit similar histories. From the standpoint of the surgical treatment of these patients it appears to be of no little moment to know just how extensive such thromboses may be, what vessels are usually involved and how frequently previous attacks have occurred. For there seems to be no doubt but that the nature of the lesion is a thrombophlebitis with complete closure and *final total* obliteration of the affected veins.

I do not wish to dilate on this most interesting phase of the history of cases of thromboangiitis obliterans any further than is necessary to show how the phenomena manifest themselves, leaving a detailed description of some of my cases for a future publication. Suffice it to say here that spontaneous thrombosis, without apparent cause, may occur in the larger veins of the arms, but most frequently in the long saphenous and its tributaries. I am speaking here not of the secondary thromboses that are sometimes seen complicating the gangrenous process, but of an independent lesion appearing here and there along the course of the saphenous or some of its tributaries, now in the thigh, now in the leg, at one time manifesting itself as a hard tender cord with or without tendency to spread, and at other times showing itself in the form of multiple indurated areas or cutaneous nodosities. When, in two of the cases, I noted that a fresh exacerbation of the superficial thrombotic process was accompanied by distinct symptoms pointing to aggravation of the disease of the deep vessels (thromboangiitis obliterans) the suspicion which I had already entertained as regards the relationship of the two conditions, became considerably strengthened. Be that as it may, for our purpose it is enough to record the fact that a certain number of these patients suffer from attacks in which tributaries of the long or external saphenous, or the trunks themselves, become diseased and closed.

Whereas it is a relatively easy matter to determine with a fair degree of certainty whether or not the patient possess patent superficial veins, the question as to the involvement of the deep veins is a most puzzling one. From the histories and from my own observation in three cases I would be willing to state emphatically that arteriovenous anastomosis would not succeed in them. For in these patients I have watched the recurrence of thrombophlebitis throughout the thigh and leg, have seen it come and go, have found it extending even down into the sole and have extirpated pieces of such veins when they were recently occluded and later when they were mere fibrous cords. A careful questioning, then, may in such instances give us all the information we desire.

On the other hand, what signs and symptoms are of value in indicating the patency or occlusion of the deep veins? Have our clinical observations thrown any light on this question? It is here that we have to concede the inadequacy of our clinical methods. Looking over the histories of the cases in which amputation showed marked obliteration of the deep veins, I find that in two of these distinct mention was made of cyanosis in the dependent position of the limb. Whereas the capillary blush, or erythromelia, made its appearance first in the usual fashion, the onset of cyanosis was more rapid and its degree more intense than in most of the other cases. Here, then, we have at least one sign which may be of service to us in this connection. Although investigations along these lines are not particularly promising, we may yet hope to learn a great deal by comparing careful clinical notes with pathologic findings. I have still a number of cases under observation which may prove particularly illuminating. In one of these—that of a patient whom I have watched for four years—the cyanosis following the temporary erythema is very pronounced and there have been numerous attacks of migrating thrombophlebitis of both the upper and lower extremities pointing at least to involvement of superficial veins.

For the future study of this particular phase of the subject I have begun the trial of the following test, by means of which we may be able to learn something about the sufficiency of the deep veins: I allow the limb to hang, watch for the advent of the erythema and wait until a fair degree of cyanosis has become established. This may take considerable time—five to ten minutes. The veins are then obliterated above the knee by means of a Martin bandage properly applied. The limb is then raised high and the bandage loosened just enough so as to remove pressure from the deep, but not from the superficial veins. If the cyanosis is slow in disappearing or fails to disappear, it may be concluded that the function of the deep veins is impaired.

Seeing the cases as we do at such diverse stages in the development of the disease, it is a difficult matter to decide as to what therapeutic measures to employ. Although I have been able to collect many data on the course of the disease after various modes of treatment, and after the appearance of the various characteristic symptoms there still remains a great deal to learn before the chapter can be closed. It may be well, however, to mention those facts which, at the present state of our knowledge, must determine us in the course which we would pursue. When the patients seek advice they usually present one of the following groups of symptoms:[5]

1. There is an ulcer that refuses to heal; erythromelia is present; neither the dorsalis pedis nor the posterior tibial arteries pulsate; the patients are suffering from their first attack of trophic disorder.
2. The same symptoms as in Group 1, except that inflammatory signs in the region of the ulcer or local dry gangrene indicate to us that the affected part of the limb will not recover.
3. There is a history of a number of recurrences such as belong to Group 1. The pain is extreme; recovery of the part is doubtful.
4. The gangrene has already involved one or more toes.
5. In the old cases in which sufficient collateral circulation must have been established years previously, the patients are over 45 years of age and suffer from a fresh exacerbation with gangrene. They have a combination of the lesions of arteriosclerosis and thromboangiitis obliterans.
6. There are no trophic disturbances; the patient may or may not have had previous attacks. The symptoms belong to the type of "intermittent claudication." The pain is either bearable or so intense that the affected limb is useless.
7. An acutely progressing affection of the vessels of one limb is evidenced by the exquisite pains and other typical signs with or without signs of trophic disorder. In some cases one limb has already been lost.
8. Any of the above pictures may be combined with attacks of migrating thrombophlebitis.
9. With any of the above pictures there may be absence of pulsation in the popliteal, or femoral arteries, or of both.
10. In those neglected cases in which a conservative operation has been done resulting in a chronic ulcerative or chronic gangrenous condition, there are usually extensive chronic inflammatory changes in the vessel and nerve sheaths and between the muscular planes.
11. The picture is dominated by attacks of ischemia that are especially marked in cold weather and involve the toes, with or without the rest of the foot. Cyanosis may be a feature in the dependent position. Either the dorsalis pedis or posterior tibial artery, or both, seem pulseless. Pain may or may not be present. The other leg may be unaffected or show one of the other groups of symptoms.
12. In those doubtful cases that belong either to this group or to the "acrocyanoses," erythromelia and ulcers may be present, but all the vessels pulsate. They are examples of an angiospastic condition, or, perhaps, they belong to a group of thromboangiitis obliterans in which only the deep veins are involved. I have had no material from such cases, and am, therefore, still undecided as to their nature.

Reviewing these conditions we ask ourselves: "When shall we suggest arteriovenous anastomosis between femoral artery and femoral vein?" In a general way we should be influenced in favor of the operation by the following considerations:

1. The feasibility of performing a perfectly functionating anastomosis; this necessitates a fairly healthy condition of the femoral artery and vein.
2. The presence of proper conditions for the production of a better vascular system. This includes patency of the deep veins, patency of the superficial veins, at least of the internal saphenous and its tributaries (the external saphenous not being theoretically necessary), a good pulsating femoral artery and a good general condition of the patient.
3. The absence of extensive local infection with ascending chronic interstitial inflammatory process.
4. The suffering of the patient.
5. The uselessness of the limb.
6. The history of the loss of the other limb.
7. The absence of attacks of migrating phlebitis.
8. Evidence of arterial occlusion, such as absent pulsation of anterior tibial, posterior tibial and popliteal arteries.
9. The presence of signs indicating that the limb can not be saved by other means.

Keeping the above essentials in mind, the cases in which the operation would be most clearly indicated are the following: Those of Groups 2, 3, 4; Group 6 if the pain warrants intervention; Group 7 if not of too long duration,[6] and finally those of Group 1 if the patients demand relief and the trouble is not alleviated by proper conservative treatment.

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[5] These twelve groups are not to be regarded as definite, mutually exclusive classes. A patient's symptoms may fall within one or more of these, depending on the period in which he comes under observation. The patient's symptoms may pass from one group into another, as we watch them month after month. However, at any particular time in the life history they usually present one of the pictures described.

[6] I add this reservation, for in one case of this group, the deep veins were found extensively thrombosed by fairly recent clot, although gangrene was not yet present. The leg was amputated at the request of the patient, because of the pain.

I have discussed this subject at such length because I feel that by my own studies I may possibly have contributed something toward directing other observers into those paths that may lead toward a more thorough understanding of one of the most interesting and difficult diseases that we are asked to treat.

I take pleasure in acknowledging my indebtedness to Miss Adele Oppenheimer, assistant in surgical pathology, Mount Sinai Hospital, for her valuable and efficient aid in collating many of the data on which I have drawn, and in thanking Dr. F. S. Mandlebaum, director the pathologic laboratory, for the preparation of the photomicrographs. Finally, thanks are due Drs. Lilienthal, Gerster, Sachs and the other members of the Mount Sinai attending staff, through whose generous cooperation a large part of the material for study became accessible to me.

63 East Ninetieth Street.

THE APPROPRIATE INSIGNIA FOR THE AMERICAN MEDICAL ASSOCIATION

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PHILADELPHIA

An emblem, to be appropriate, should be so devised as to convey a meaning suitable to the organization which carries it as a badge; therefore it seems strange that the American Medical Association should have adopted for its use the device of the red cross, which belongs to another organization and represents a character of work entirely different from that of the medical profession.

The American National Red Cross, through its executive committee, passed resolutions Oct. 18, 1907, which decided that by reason of an international agreement the emblem of the red cross was adopted to designate the personnel of sanitary corps, and was to be used in time of peace or war to protect sanitary formations, establishments and personnel and material.

Furthermore, in order that the emblem should be kept in its proper place, legislation has been recommended to prevent its use by private persons or by societies, and the executive committee has requested that all hospitals, health departments and like institutions kindly desist from the use of the red cross and suggests that some other insignia be substituted for it.

Some commercial houses which manufacture surgical necessities and appliances, together with some nostrums, print the red cross on their packages of kidney plasters, dog soap and dyspepsia medicines. There is a nurse's school which claims to teach nursing in a short term of a few weeks and calls the graduates "red cross nurses" who go out in competition with those who have served several years in hospitals.

In many of the large cities throughout the United States druggists are fond of naming their places "Red Cross Pharmacy." In New York and Chicago physicians have placed this symbol on their automobiles—whether this gives them more privileges than they would otherwise have is a question; it appears more as an advertisement than an explanation for speed. On state occasions some use it as a chevron on the sleeve, and sometimes the police think they have a right to it during large parades and wear it before the crowd.

There may, however, be raised the question of priority of use, inasmuch as the red cross was adopted by the American Medical Association before the laws were passed, and therefore the latter has a perfect right to its use. This all may be true, but when we come to consider the objects of the Red Cross as originally set forth in 1864 we must concede that its use was not intended solely for the medical man but for all connected with the work of relief. Besides, we should be charitable enough to consider that we have appropriated an emblem devoted to humanitarian work.

What, then, is the proper badge of the medical profession?

In the United States Army the device of the surgeon is Mercury's wand, consisting of a rod surmounted by a pair of wings with two serpents twined about it. Carefully examining the literature on the subject of Mercury we learn many facts arguing against the use of this latter emblem in the healing art. We shall see that it belongs strictly to commerce and trade; the name "Mercury" itself is derived from the Latin *merx, mercis*—"goods." Mercury was the Roman divinity of commerce and gain; also *mercor,* to traffic, is from the same root; the word *mercatus* is akin to our English word "market," as is also the word *mercator,* "merchant."

Mercury, the Roman god, is identical with the Greek god Hermes and was considered the god of diplomacy, arts, sciences, commerce, gain and riches, especially of sudden and unexpected riches and of good luck at the games. He was usually represented with a purse in one hand, his magic caduceus in the other, and was supposed to preside over the commerce of the Romans.

The magic caduceus of Mercury is an evolution of the staff of Hermes, and the original caduceus or staff was an olive branch with garlands. Later ribbons were substituted for the garlands and finally mythologists transformed the ribbons and garlands into snakes, about which others, like Hyginus, invented various tales, one of them being that Hermes found two snakes fighting in a garden and, dividing them with his wand, chose this as a symbol of the quarrels which it was his duty to assist in settling. After a time a pair of wings was added to the staff to indicate the speed of Mercury as a divine messenger; it also became a symbol of power that produced wealth and was supposed to be an enchanted wand of prosperity.

Owing to the fact that Mercury's wand is used by the United States Army and by some medical publishers, and is to be placed on the ambulances of some New York hospitals, it would appear to be the proper emblem; but, studying the references which we have just gone over, we learn that it is more adapted to merchants, delivery wagons and steamships and is a commercial device. With the knowledge that the red cross and Mercury's wand are incorrect emblems, what, then, shall we consider the true insignia for the healing art?

The medical profession should be proud of the fact that a symbol has been handed down from ages past, though it was lost to some extent by those who forgot history and our traditions and desired something new for a device. The true ancestral symbol of the healing art is the knotty rod and serpent of Esculapius. Delving into the history of this symbol we find a veritable mine of facts which will convince us that we have a heritage worthy of our profession. It is customary to trace the history of medicine back to the story of Esculapius, whom the Greeks elevated to the position of the god of medicine. He was revered and worshipped throughout Greece, but the great center of healing was at Epidaurus, where a beautiful temple was built to his honor in which his statue by the sculptor Thrasymedes stood. This statue, of gold and ivory, the head bearded and surrounded with rays, a knotty stick in one hand, the other entwined by a serpent, gives us the original symbol of the healing art.

Serpents of a peculiar kind were kept in the temples. Votive tablets also have been found on which the ailments were inscribed and which were similar to our hospital case records. No doubt Hippocrates, the "father of physic," gained much of his knowledge of medicine from these tablets, for some of his reputed writings and formulas, such as Prorrhetica or Prædictiones and Coacoæ Prænotiones, are very much like them. He was a decendant of the early Asclepiades and was said to be the nineteenth in descent from Esculapius. He inherited the instruction of his fathers though a long line of physicians and was well versed in the practice of his time.

Later on we find the Greek practitioners coming to Rome, and the practice of the Asclepiades came with them. According to the Roman law they were freedmen. After a time they established shops, on which they placed the sign of the Esculapian snake and practiced their art and sold medicine; the Romans called them *medicinæ.*

We learn from Ovid that on the occasion of the great plague in Rome, at the command of the Delphic oracle, B.C. 293, an embassage was sent to the temple of Esculapius at Epidaurus, whence was brought a living serpent which was received with great ceremony by the Romans. They built a temple on the Tiber and the serpent was placed therein.

Now let us glance at the sources of this serpent idea as found in the earlier times and the strange ramifications of the respect for the serpent among barbaric races. In the earliest civilized times we find that the Egyptians represented the eternal spirit "Kneph" as a serpent. Osiris in snake form was usually associated with health; the Chaldean Hoa was identical with the *Agatho-dæmon,* which the Hebrews, who were in Egypt for over four hundred years, learned to regard as the symbol of health and life. Thermuthis, the sacred asp, was associated with Isis, the goddess of life and healing.

The serpent's change of skin may have been suggestive of resurrection and renovation; he was feared because he was supposed to possess superhuman knowledge and power. His supposed longevity was, no doubt, the reason why this animal entwined about a staff was symbolic of health and the distinctive attribute of the classical Esculapius and Hygeia.

We find also that the Phenicians adored the serpent as a beneficent genius. The Hindoos had a serpent deity, Rudra, who was not only beautiful and strong but also the healer. The Druids had serpents in the sanctuary to bring good fortune. The Python of the Greeks in the table of Apollo, described by Ovid, was all-powerful; the Celts, the Basques and all Asia had legends of the Orm and the Paystha pictured as a great dragon.

We are all familiar with the fables of St. Michael and St. George, and, turning to the Chinese, the winged dragon or serpent is a symbol of superior wisdom and power.

In the folk-lore of the Gauls and Germans the white snake, when boiled, was considered to have the attribute of conferring wisdom in medicine. The white snake was also venerated by the Scottish highlanders, as well as by certain Arabian tribes, as a mighty agent and the king of all serpents.

Following this thought into America, let us learn what the Indians believe in this respect. The general idea among them is that it brings happiness. Professor Agassiz tells us that he found the Maues Indians, who live in Brazil, whenever they assign a form to any *remedio,* give it that of a serpent. Among the Lenape Indians their famous doctors were called "big snakes."

We must not forget to look into Holy Writ for the symbolical influence and intelligence of the serpent in the history of the fall of man, where it is stated, "Now the serpent was more subtle than any beast of the field."

In the story of the Exodus we have many allusions to the serpent as a power for deliverance. Aaron's serpent rod is an instance. Also during the wanderings in the wilderness Moses placed a brazen serpent on a pole in the midst of the camp, which was preserved for many centuries, until the days of Hezekiah. when it was broken to pieces because it became an object of worship and tended to turn the people from their true God.

During the Christian era the serpent was employed to signify the virtue of prudence and wisdom; the disciples were admonished, "Be ye wise as serpents."

In the Latin church of the early days the pastoral staff terminated at the top with a serpent, indicating power and wisdom.

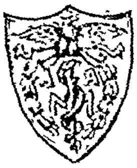
Whatever element of superstition or imagination may have been injected into these stories of mythology and the legends of more recent times, there is a wonderful history hidden behind them, all of which permeates the whole human race.

Man in his primitive state and in his more civilized life believes there was a superior power for good, and his mind, requiring a material expression of that unseen source, used the serpent as a symbol of power and wisdom. Without this the rod of Esculapius would be impotent over disease and the wand of Mercury would have no authority over trade or commerce. The cultured Greeks therefore, having great respect for the healing art, honored it with the most significant and expressive symbol of the highest attributes conducive to the welfare of the race.

Among the orientals the shepherd was considered the highest type of citizen. whose life in the open country brought him in contact with great struggles. The rod was the weapon with which he struck down the adversaries of the sheep; the staff or crook, however, was used for their guidance in the proper path on the trackless pastures. Hence we read in the beautiful pastoral song of the "shepherd king" these expressive words: "Thy rod and thy staff they comfort me." The rod therefore became the symbol of a defending power which brought comfort and support to the weak in the consciousness that they were protected from all danger.

Esculapius was always pictured with a knotty rod in his hand, the knots indicating the many difficult problems of physic to be solved in the treatment of the ailments of mankind. Therefore, applying these thoughts to the symbol, we have in the entwined serpent, power, wisdom and health, together with the protection and support against disease and the difficulties to be overcome by the knotty rod. With this historical symbol the sanctity of medicine can be pictured and the doctor is shown in his true light, not only as a laboratory scientist and as a practitioner, but as a teacher and adviser to the patient, the family and the community in all the difficult problems that arise concerning health and disease.

This dissertation on the meaning of the medical emblem will suggest the appropriate insignia of the American Medical Association to be as follows: A shield on which is emblazoned the American eagle holding in its talons a laurel wreath within which is the knotty rod and entwined serpent and the letters A.M.A., of which a design is here submitted.



Suggested design for an emblem for the American Medical Association.

The explanation of the emblem so devised would be as follows: The eagle represents the national organization of the United States; the laurel wreath stands for the crown which the Romans bestowed on the healing art; the entwined serpent is indicative of power, wisdom and health, and the knotty rod signifies protection and support in the difficult problems of the treatment of disease.

SUMMARY

The insignia and device of the red cross belongs to another organization and its use is not proper for the medical profession. It represents a character of work entirely different.

From the fact that Mercury was the Roman god of trade and commerce and his magic caduceus was the symbol of authority over trade and commerce and was the enchanted wand of prosperity, it is not adapted to be an emblem for the healing art.

The knotty rod and serpent of Esculapius is the ancient inheritance of the medical profession, and the history of this symbol, together with its mythology and its legends, prove its appropriateness, for the reason that the serpent was considered by every race on the globe as a great power and man's mind used it as a symbol of wisdom and health.

The knotty rod is an expressive representation of support, protection and comfort in the difficult problems arising in the management of disease.

NOTE.—It may interest readers of this paper to consult some of the following authorities on the subject:

Smith William: Dictionary of Greek and Roman Biography and Mythology
Niebuhr. History of Rome
Harper's Dictionary of Classical History and Antiquities, and Encyclopædia Americana
Walton The Cult of Æsculapius
Brinton The Myths of the New World
Parke Epitome of the History of Medicine.
Bulletin American National Red Cross, Nos 1 and 2.
McClintock and Strong Cyclopedia of Biblical, Theological and Ecclesiastical Literature.
Wake Serpent Worship
Meyer The Shepherd Psalm
Dunglison History of Medicine.
Blair and Crawford. Design.

639 North Sixteenth Street.

Importance of Dental Orthopedics.—F. A. Gough (*Amer. Jour. Obstet.*, April) states that though parents desire that their children have good permanent teeth, few realize the importance of saving the deciduous teeth till their mission is accomplished.

Clinical Notes

ACUTE PECTORAL (THORACIC, ANTERIOR AXILLARY) LYMPHADENITIS FROM CUTANEOUS INFECTIONS OF THE LOWER LATERAL CHEST AND UPPER ABDOMINAL WALL

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Based on the observation of three cases, I published the following editorial note in the *American Journal of Surgery*, April, 1906:

> A tender, painful swelling just at or beyond the upper, outer border of the breast, and near the edge of the pectoralis major, is usually an inflamed lymphatic gland. In its presence it is well to look for some skin infection about the waist line, e. g., furuncles, which are not rare at this site as a result of irritation by the corset. *Per contra*, with a boil, abscess, dermatitis or other infection at or above the waist line, one may be on the lookout for glandular enlargement at the point referred to.

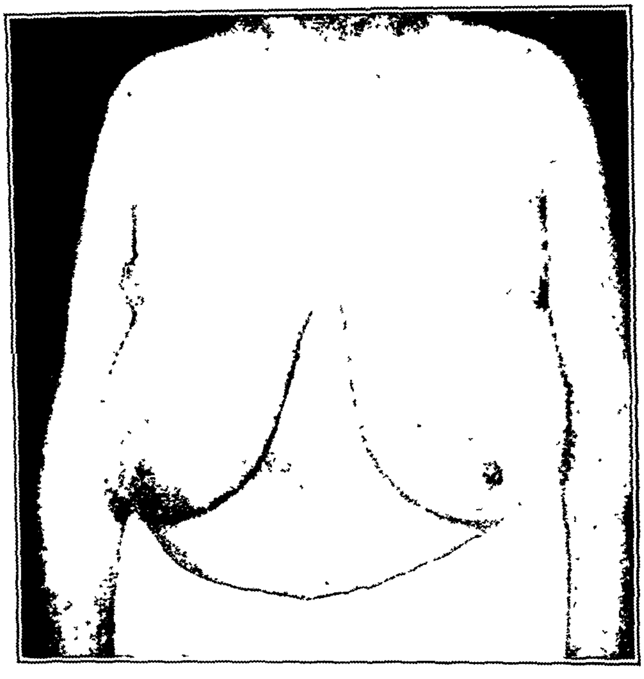

Fig 1.—Photograph showing pectoral adenitis, and location of furuncle causing it

Two similar cases have since come under my care. All five of the patients were women. In four the exciting lesion was a furuncle, and suppuration slowly developed in the glands; in the other case infection of a superficial burn over the lower costal cartilages caused the lymphadenitis, which resolved without suppuration. Four of the patients had previously consulted other physicians, who had regarded the thoracic swellings as neoplasms.

The patient from whom the accompanying photograph (Fig. 1) was made presented herself recently at the Mount Sinai Hospital Dispensary, with the statement that the hard swelling in the right anterior axillary line, above the breast, had been developing for three weeks. She said that at two clinics the diagnosis of cancer had been made and radical operation advised. The assistant who first examined her at the Mount Sinai Hospital Dispensary was also inclined to look on the swelling as a neoplasm until it was suggested that he examine the line of corset pressure for the cause. A receding furuncle, shown in the photograph, was there found. Five days later the thoracic swelling was larger, somewhat reddened and adherent to the skin, but still fairly hard; an incision evacuated pus and thereafter the tumor promptly subsided. Just before it was incised two colleagues—both men of experience and training—pronounced the swelling an "undoubted carcinoma."

The mistake is most apt to be made in women with large, firm mammæ, in whom the proximity of the tumor suggests its involvement of outlying breast tissue. The lesion is probably more common in women than men for the reason suggested in the above-quoted note.

In "The Lymphatics," by Poirier, Cunéo and Delamare,[1] the axillary glands are divided into the following groups: (1) humeral, (2) thoracic, (3) scapular, (4) central or intermediate, (5) subclavian. The thoracic, pectoral or anterior group or chain consists of a superointernal portion, overlying the second or third intercostal space beneath the pectoralis major, and an inferoexternal portion, over the fourth and fifth intercostal spaces, along the long thoracic artery. As will be seen in Figure 2, "the anterior cutaneous and the mammary lymphatics more particularly end in the superointernal group; the absorbent vessels of the lateral wall of the thorax in the inferoexternal group" (Leaf).

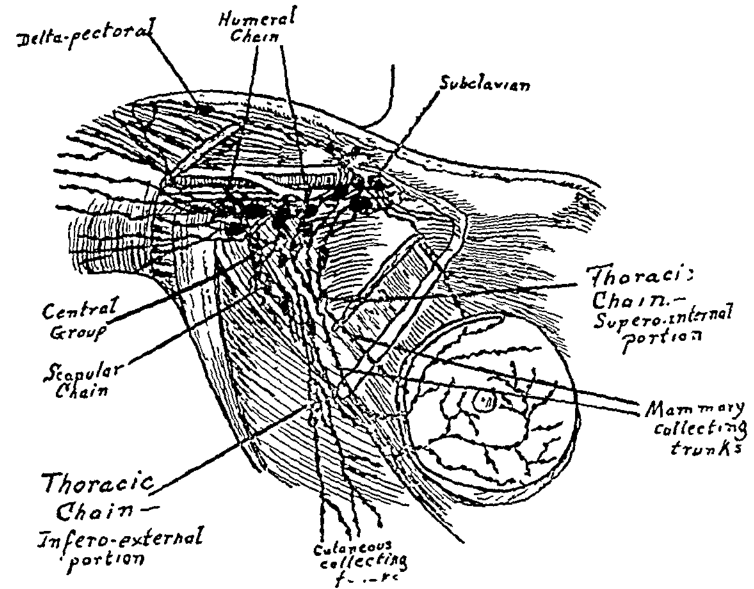
Delta-pectoral
Humeral Chain
Subclavian
Thoracic Chain.—Supero-internal portion
Central Group
Scapular Chain
Mammary collecting trunks
Thoracic Chain—Infero-external portion
Cutaneous collecting

Fig. 2.—The axillary glands and lymphatic drainage (After Poirier)

It is, then, the superointernal (portion of the thoracic) group which is usually early involved in breast carcinoma. The inferoexternal portion, on the other hand, is affected in cutaneous lesions of the lower lateral chest wall and of the upper abdomen; when inflamed, these glands form a mass over the fourth rib near the outer edge of the pectoralis major, sometimes partly beneath that muscle.

The text-books of surgery discuss acute lymphadenitis in general rather than in anatomical detail.[2] They make no more specific reference to the lesion under consideration than such general statements as "all infections in the upper extremity, the adjacent thorax, or the breasts, may produce [axillary] lymphadenitis with or without a recognizable intercurrent lymphangitis."[3]

This note is written, therefore, to call attention to a condition but little described and often misinterpreted.

30 West Ninety-second Street.

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[1] Translated and edited by Cecil H. Leaf.

[2] The surgical text-books by the following authors and editors have been searched in vain for a reference to acute pectoral adenitis: von Bergmann (in German); von Bergmann-Bull (English); Bryant and Buck (incomplete); Keen, Fowler, Da Costa, Walsham, American Text-Book of Surgery, Dennis, Park, Tillmann (in German and English), Wullstein und Wilms, Wyeth, Brewer; likewise the works on surgical anatomy by Deaver, Woolsey, Eisendrath; and various works on surgical diagnosis.

[3] Von Bergmann-Bull, iii, 80.

LIMITED SUBSCAPULAR MYOPATHY WITH ABSENCE OF FACIAL, HUMERAL AND CRURAL INVOLVEMENT *

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PHILADELPHIA

The following case is of interest chiefly on account of the unusual distribution of the atrophy. It does not conform at all to the pseudohypertrophic type or to the Landouzy-Déjerine type, but approaches more nearly the scapulohumeral or juvenile type of Erb.

Fig. 1.—Front view of patient with muscular atrophy of a type approaching Erb's scapulohumeral or juvenile type.

History.—The patient, E. H., a white girl, aged 17, was a patient at the neurologic dispensary of the Jefferson Medical College Hospital. She had chickenpox and gastric fever at 8 years of age, and an attack of chorea at 9 years. This latter was caused by a fright, lasted six months, and was of unusual severity. She was never very robust.

Present Illness.—The onset was so gradual that it was impossible to say just when the wasting commenced. Two and a half years before the time of examination the attention of the patient's mother was attracted to what seemed to be an unusual concavity in the front of her chest, but it was not until several months later that the flaring of the right shoulder-blade was observed. Shortly after this the patient noticed a prominence of the sternal end of the right clavicle and experienced difficulty in raising the right arm to arrange her hair. About six months before the examination the same symptoms were found to be commencing on the left side. There was never any pain until the condition was well advanced, and then only an occasional aching or soreness of the right shoulder and back after exertion. Six months before the first symptoms were observed the patient collided with a horse and buggy while riding a bicycle, sustaining a sprained ankle and considerable shock. This was the only history of trauma. An older sister, who used to bathe and care for the patient during her infancy and early childhood, was positive in her assertion that at this time there was no deformity present.

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* Presented before the Philadelphia Neurological Society, Feb. 26, 1909.

Examination.—The patient was a fairly well-nourished girl, presenting marked flaring of the right scapula, with wasting of the underlying serratus and rhomboid muscles, and with a similar but much less marked condition of the left side. Anteriorly there was an abnormal concavity on both sides of the upper chest, most marked on the right side. The right sternoclavicular articulation was unusually large and prominent. The patient was unable to raise her right arm higher than the level of the shoulder, and when she attempted to elevate or bring the arm forward, the scapula glided on the shoulder. When the scapula was held firmly in place against the ribs in its normal position the arm could be fairly well raised. There was no wasting of the deltoid, supra or infraspinatus on either side, or any wasting of the thenar, hypothenar or interosseous muscles. The lower extremities presented no wasting or pseudohypertrophy. The atrophied muscles presented no fibrillation, and the electrical reactions were normal.

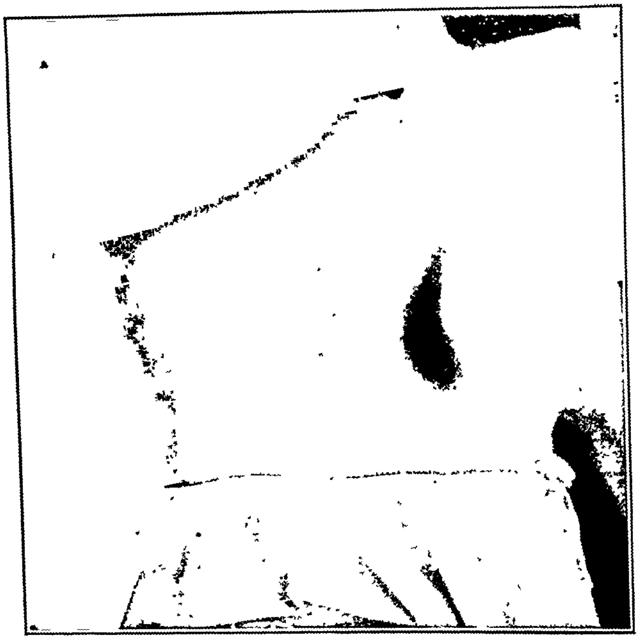
Fig. 2.—Rear view of same patient (with muscular atrophy) shown in Fig. 1.

Diagnosis.—The condition had to be differentiated from the serratus palsy due to disease of the long thoracic nerve; from progressive muscular atrophy of spinal origin; and from congenital elevation of the scapula or Sprengel's deformity. Opposed to neuritis was the absence of exciting cause, the absence of reactions of degeneration, and the slow progressive course with bilateral symptoms. The age of the patient and the absence of fibrillation and reactions of degeneration differentiated the condition from a chronic anterior poliomyelitis; while the fact that symptoms were not observed until after infancy, and the progressive course, separated it from Sprengel's deformity.

Treatment.—When the scapula was held in place by the hand or the point of the shoulder held backward, the arm assumed a normal position and the range of movement was greatly increased. This fact suggested the advisability of a brace, and I referred the patient to the orthopedic department, where she was fitted with an admirable apparatus which fixed the scapula and to a certain extent held the shoulder back as well. Massage, galvanism, and the high-frequency current have been given her. She is certainly more comfortable and the wasting does not seem to have progressed under my observation.

I am indebted to Dr. F. X. Dercum for the privilege of placing the case on record.

NEW ABDOMINAL RING SPECULUM

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CHICAGO

Too many forceps about an abdominal wound, one of which might become lost in the abdomen; too much catching of suture and ligament material about the hemostats, impeding work and annoying the operator, especially when forced to hurry in his work; too much loss of the assistant's power, due to his hands being so much employed in pulling retractors—experience of all these hindrances caused me to scheme to obtain some simple device to do away with these difficulties. The set of rings, which my instrument-maker has called an abdominal ring speculum, is the result.

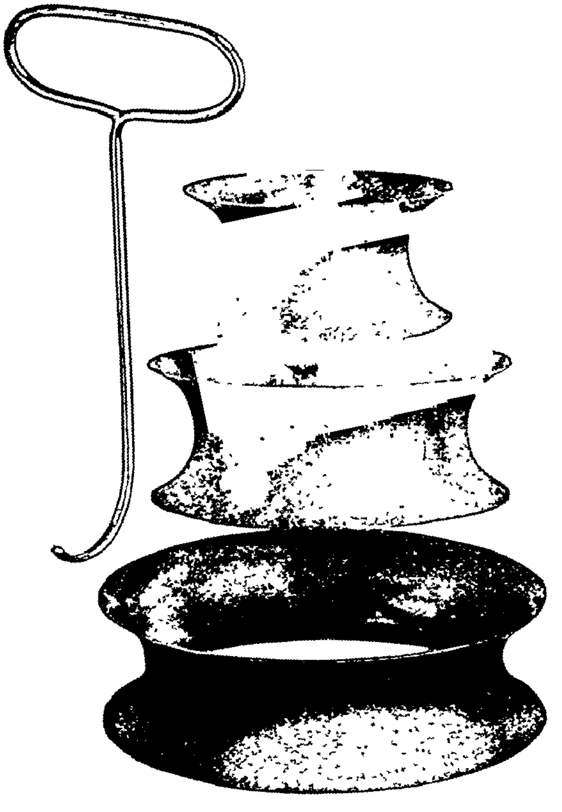
Fig. 1.—Abdominal ring speculum in three of the six sizes; and blunt-pointed retractor for use with the speculum.

The next thought which occurred to me was that of stretching a large sheet of sterile rubber dam over the ring, a small hole having been cut in the center of the sheet of rubber dam, thus completely covering the edge of the wound, skin and umbilicus with sterile rubber sheeting, and in a far more convenient way gaining the object sought by the use of gutta-percha varnishes, pastes, etc. This convenience has afforded me much comfort in my operative work in the past year, and furnishes a field of observation in clinical teaching heretofore unattainable.

Its use is simple. The method is as follows:

1. Make the abdominal incision the desired length, and then clamp and twist or ligate only the spurting arteries. The oozing points will be controlled entirely by the pressure of the ring and need not be individually clamped.

2. Open the peritoneum and place the patient in extreme Trendelenburg position.

3. Grasp the abdominal wall with the hand and have the assistant do the same on the opposite side.
4. Pull the abdominal wall forward and with the other hand work the intestines up toward diaphragm.
5. Place the laparotomy sponges and pack them tightly toward diaphragm, placing one clamp on all the tapes attached to them and collected in one bundle.
6. Place the rubber dam around the abdominal speculum, and then insert the ring into the abdominal opening in such a way that the wall of the abdomen on one side only fits into the groove around the ring.
7. Now spread the rubber dam over the patient, and, while holding the ring in place with one hand, gradually, inch by inch, push the opposite abdominal wall outward over the edge of the ring, when it will immediately snap into the groove and remain there. The whole proceeding is similar to clinching on an automobile tire.

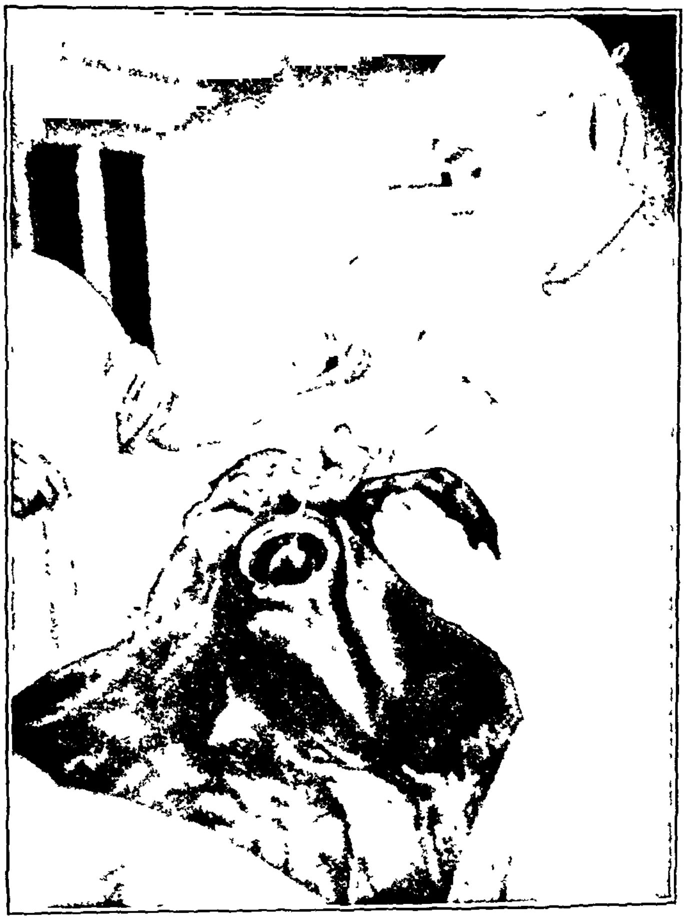

Fig. 2.—Ring speculum, rubber dam and retractor, in use.

The ring, once in place, is held there by the abdominal wall very firmly; in fact, it requires a particular maneuver to get it out.

Since it may, in the course of the necessary work on a given case, become desirable to get a little further to one side or the other, a hook is furnished with the rings, bent to fit exactly on the inner curve, by means of which retraction can be accomplished. Retraction in this way is superior to the older methods in that one is always retracting a perfect circle.

No claim is made for a universal application for this abdominal ring speculum, but it is of service in by far the greater number of abdominal cases. A little use will soon demonstrate its value to the operator, and he will quickly find out that it has a far greater use than would at first appear.

One of the first criticisms of the instrument that I have heard is that too large an incision has to be made. Those who make this remark forget the natural resiliency of the tissues. The incision does not have to be any longer than the greatest diameter of the ring. About half an inch greater than the internal diameter of the ring is all that is required.

Another criticism is that it is undesirable to cut the patient to fit an instrument. This remark is made without due consideration, for it is to avoid this necessity that a series of six rings is made, with interior diameters, 4, 3½, 3, 2½, 2 and 1½ inches, thus affording a ring convenient for any incision.

I have used the abdominal ring speculum in fifteen cases, with not only satisfactory but brilliant results. I have not had a wound infection in any one of the cases.

This being only a preliminary report, no detailed account of cases will be given, but a later article will take up those details.

100 State Street.

DEVIATION OF COMPLEMENT WITH FAILURE OF COMPLETE HEMOLYSIS (WASSERMANN REACTION) IN CERTAIN, NON-SYPHILITIC, HUMAN SERA

A PRELIMINARY COMMUNICATION *

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ANN ARBOR, MICH.

The specificity of the so-called Wassermann reaction together with its clinical interpretation have been matters of comment and criticism since the introduction of the test. Granting that in all cases in which work has been reported, the technic and the component parts of the manipulations have been beyond question, it has been frequently noted that cases of undoubted syphilis, clinically, have failed to give positive reaction. Conversely, the literature already contains rather frequent mention of failure of hemolysis in instances in which leutic history has been eliminated and in which individuals have been ill from various other ailments.

Landsteiner[1] found that when rabbits had been inoculated with *Trypanosoma equiperdum* their serum caused inhibition of hemolysis. Weil and Braun[2] noted positive indications from the test in cases of pneumonia, typhoid fever, tuberculosis, diabetes and certain tumors variously distributed throughout the body. Munch and Eichelberg[3] have called attention to the fact that serum from patients affected with scarlet fever behaved similarly. However, Ivy McKenzie[4] notes no inhibition of hemolysis in nine cases of scarlet fever, four cases of lobar pneumonia, three cases of bronchopneumonia and six cases of typhoid. In six cases of tuberculosis hemolysis was complete, and in four out of five cases of chronic tuberculosis there was no inhibition. Butler[5] obtained the reaction in three cases of noma, in which the etiologic factor appeared to be due to *B. fusiformis* and a spirillum. Gay and Fitzgerald[6] report no positive reactions in patients affected with acute conditions such as typhoid fever, pneumonia, meningitis and tuberculosis.

In the course of our work with the Wassermann reaction, we have observed that blood serum of evidently non-syphilitic patients, who are in progress of treatment for rabies or who have recently taken such treatment, by the Pasteur method, possessed certain properties which prevented or influenced the lysis of sheep's erythrocytes.

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* From the Laboratory of the Pasteur Institute at the University of Michigan.

1. Referat am Internat. Kong. f. Hyg., 1907.
2. Wien. klin. Wchnschr., 1908, No. 26.
3. Med Klinik., 1908, p. 671.
4. British Jour. Path. and Bact., January, 1909.
5. New York Med. Jour., Jan. 30, 1909.
6. Boston Med. and Surg. Jour., Feb. 11, 1909.

Details of cases, together with practical and theoretical considerations need not greatly concern us here. Suffice it to say that it would appear that the partial or total absence of hemolysis in these Pasteurized patients is explained by the fact that this class of patients in the course of the prophylactic treatment, receive rabbits' blood serum as an extrinsic substance. Consequently, from these injections, they become more or less perfectly sensitized to rabbit's serum.

By the original procedure of the Wassermann reaction, the extrinsic components are obtained from the rabbit (amboceptor), the guinea-pig (complement) and sheep's blood (erythrocytes).

It *apparently* follows that if one uses the rabbit to obtain hemolytic serum (amboceptor) for the sheep's erythrocytes, this serum after inactivation, will give the precipitin reaction with the sensitized human serum of the Pasteurized patient and the complement (from guinea-pig). This precipitin reaction is due to the presence of amboceptor in the blood serum of the patient who has had the prophylactic injections of rabbit's serum according to the Pasteur method, and to the receptor in the inactivated rabbit's serum. This inactivated serum, in the presence of complement (guinea-pig's serum) and sensitized erythrocytes (sheep) gives rise to a deviation of complement. It thus follows that there is a fixation of complement in both the precipitin reaction present and in the process of hemolysis.

The consideration of the resulting partial or complete absence of hemolysis, together with a fuller explanation of the phenomena connected therewith, we shall endeavor to take up in a future communication.

URETERAL CATHETER FOR THE DETECTION AND DISLODGMENT OF STONES

JOHN H. CUNNINGHAM, JR., M.D.
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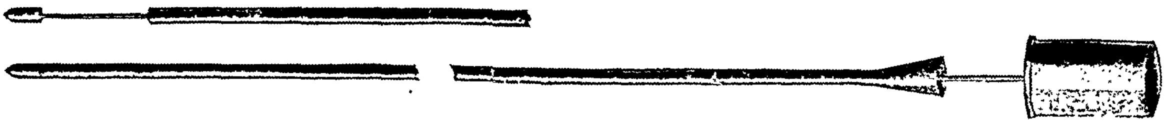
BOSTON

Previous to the employment of the *x*-ray as a means of detection of calculi in the ureter, the error in diagnosis between stones in the kidney and ureter was great. The employment of the *x*-ray has been of the greatest value in the diagnosis. This method of diagnosis, however, contains a two-fold error: first, the impossibility of detecting pure uric acid calculi; and, second, the presence of questionable shadows in, or near by, the course of the ureter. It has been a common mistake to cut down on supposed *ureteral calculi because* of shadows present in *x*-ray plates, and to find no ureteral stone, the shadow being due to a faulty plate, calcified gland, sclerotic artery, phlebolith, calcified bodies in muscle or fascia, or accentuated calcification in the transverse processes of the vertebræ. It has been recognized that a simple *x*-ray picture is subject to these errors, at least, and to overcome this error it has been the custom of those expert in genitourinary surgery to pass styleted urethral catheters and to have the *x*-ray picture taken with the catheters in the ureters, by which means it has been possible to interpret shadows suggesting ureteral stones more accurately, as the course of the ureter is clearly defined by the shadow cast by the metal stylet, and a calculus in the ureter will be detected budding, as it were, from the stylet.

While this method of diagnosis is satisfactory, it is possible to employ it only when all the necessary apparatus is at hand.

To detect stones in the ureter without the *x*-ray, and to aid in their dislodgement, the instrument here illustrated is of value. It consists of a ureteral catheter with an opening at the tip through which a manganese stylet is passed. On the distal end of the stylet is soldered a silver conical-shaped tip, the proximal end of which is concave, and of the circumference of the ureteral catheter, so that it fits perfectly over the opening. On the proximal end of the stylet is soldered a metal cup which may be fitted into a stethoscope. By the passage of this catheter into a ureter containing a calculus an impulse is carried to the ear as the metal tip strikes the foreign body. The catheter being marked off in inches, it is known exactly what distance the stone is from the ureteral mouth.



The lower figure shows the ureteral catheter with the silver tip flush with the catheter end, and the metal cup at the proximal end of the stylet, which cup fits into the stethoscope.

The upper figure shows the silver tip advanced in position to be withdrawn after the catheter has passed a ureteral stone. It is hoped that the concave shelf at the base of the conical tip will engage the ureteral calculus enough to dislodge it, and allow it to pass on into the bladder after the catheter is removed.

The second object of this catheter is to aid in the dislodgment of the calculus if detected. It is well known that the ureteral catheter will usually pass any calculus in the ureter, and it has been observed many times that the stone is often dislodged following the removal of the ureter catheter. This is probably due to the fact that the stone is only lightly held in the ureter, and the dilation produced by the passage of the catheter by it may result in sufficient dilatation to allow the stone to pass on after the catheter is removed. This, however, does not always take place, and with the idea of increasing the possibility of dislodging the stone, the conical end of the stylet is advanced for about one inch, after the catheter has passed the stone, and then, the catheter being withdrawn, the shelf on the conical end may engage the stone and dislodge it.

829 Boylston Street.

Medical Inspection Prevents Caisson Disease.—The engineers who built the Cortlandt street tunnel below the Hudson river are justly proud, says the *Scientific American*, of the fact that the whole 5,900 feet of pneumatic work was driven through without the serious injury, through air pressure, of a single workman. The tunnel was built under air pressure of from 25 to 35 pounds to the square inch, and the enviable freedom of the workmen from attacks of the "bends" was due mainly to a searching medical examination of all candidates for the compressed-air work.

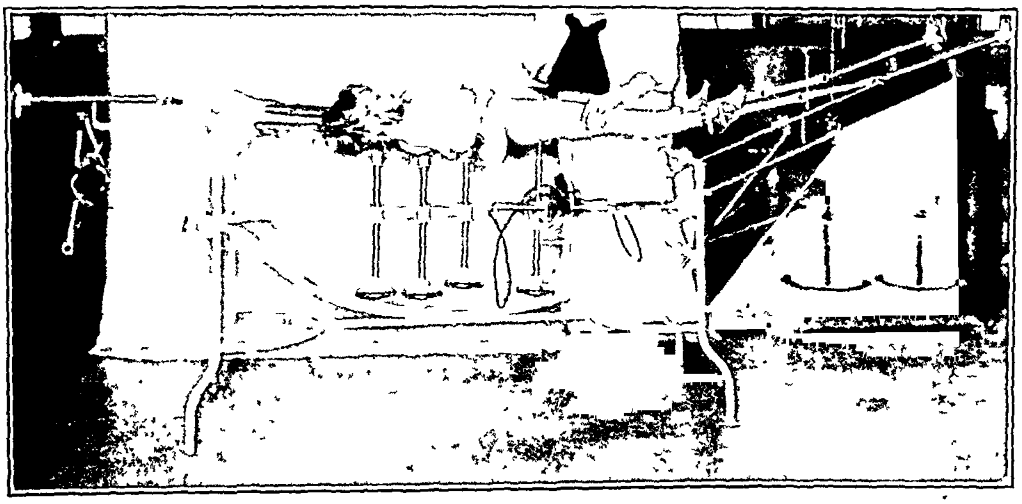
AN IDEAL ARRANGEMENT FOR THE TREATMENT OF FEMORAL FRACTURES

EDWARD A. RICH, M.D.
TACOMA, WASH.

The accompanying illustration shows a practical and exceedingly satisfactory arrangement for the treatment of fractures of the femur. Hammerstein's extension table is made use of to fix the patient's body and limbs; an *x*-ray tube suspended on an adjustable cross-bar of the table is connected with the coil. An assistant can increase or decrease the amount of extension by a turn of the screw attachment, as can he also control the amount of abduction or adduction.

The operator thus equipped can make frequent use of the fluoroscope during his manipulations and all guesswork is positively eliminated. When perfect position is secured there is no hindrance to the application of splints. Should plaster-of-paris casings be used we have the same unobstructed freedom as when applying spicas for tubercular hips. I use internal plaster splints and external splints of the same material, reaching from the axilla to the external malleolus with a steel rod incorporated for extension on the foot. When the splint is properly applied and secures muscular immobilization there is no reason why the bony fragments should be displaced.

The last three femoral fractures that have been referred to me were difficult cases, all of the patients having suffered breaks in the region of the surgical neck. The three after this method of illuminated reduction and immobilization were taken from my operating room to their homes in conveyances. Later radiographs show splendid results.



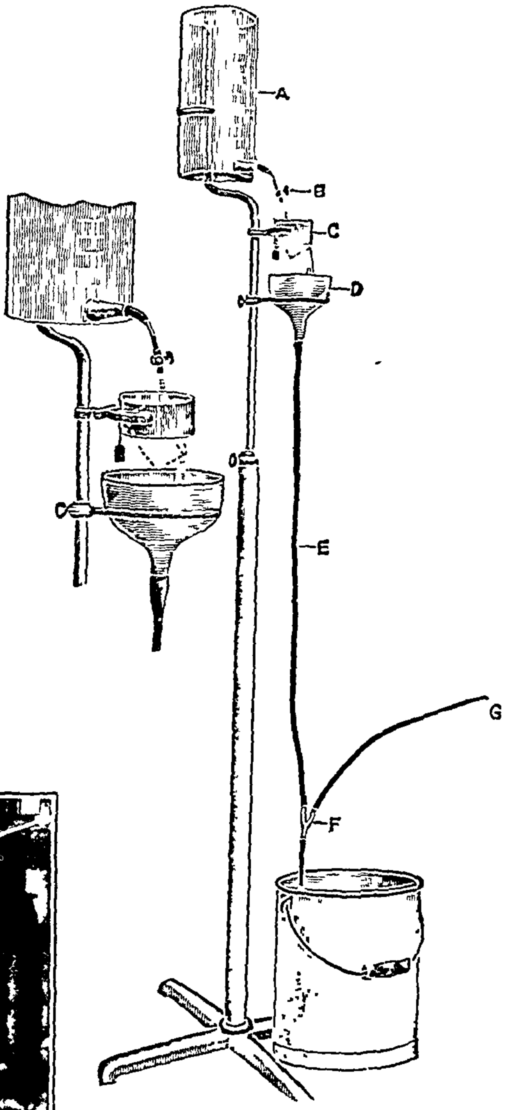
Extension table with *x*-ray attachment for the treatment of femoral fractures by the illuminated method. Note the unobstructed field for application of immobilizing splints; also mode of applying extension and abduction, and case of positive reduction.

NEW APPARATUS FOR COMPLETE DRAINAGE OF THE BLADDER FOLLOWING EITHER SUPRAPUBIC OR PERINEAL CYSTOTOMY

LEWIS WINE BREMERMAN, A.M., M.D.
CHICAGO

Having had considerable difficulty in draining the bladder after cystotomy with the ordinary apparatus, I devised the apparatus shown by the accompanying cut, which fulfills perfectly the purpose for which it was constructed, that of perfect drainage of the bladder.

After the patient is placed in bed the tubing is connected with a drainage tube from the bladder. The Y-shaped tube F must be below the level of the patient lying in bed; the reservoir A filled with water, the stopcock B turned on so that the water will drop slowly into the cup C, which, on being filled, tilts and empties itself into the funnel D. The water running down the long tube E into the Y-shaped tube F forms behind it a suction which causes a siphonage of the fluid in the bladder. This siphonage may be regulated to occur at any given interval by arranging the flow of water from the stopcock B which flows into the cup.



Apparatus for complete drainage of cystotomy; A, reservoir for water; B, stopcock for regulating the flow; C, cup weighted in the rear to hold in place when empty; D, funnel to catch the water when the cup tips on being filled with water; E, long tube which connects the funnel with the Y-shaped glass tube; F, Y-shaped glass tube; G, tube connecting the drainage tube from the bladder with the Y-shaped tube

Usually the first twelve hours following the operation I regulate the flow so that the cup will tilt every five minutes, which is sufficiently often to keep the bladder perfectly dry. During the second twelve hours I arrange the flow so that the cup tilts about every ten minutes; during the second twenty-four hours, about every fifteen minutes.

I find this apparatus of exceptional value, particularly after prostatectomies, in which perfect drainage is exceedingly essential. Complete drainage of the bladder causes the patient to be comfortable and free from pain, whereas if the bladder is not drained completely and is allowed to fill, the distention is accompanied with considerable pain and discomfort to the patient.

I am sure that those who are doing much bladder work have met with the same difficulties in perfect drainage as I have met with in my work, and that if they will take the occasion to use the apparatus which I have devised they will be satisfied with the results.

72 Madison Street.

WOUND CLOSURE WITH A MINIMUM SCAR *

H. EDWARD CASTLE, M.D.
SAN FRANCISCO

This subject is ever interesting, as the scar which remains is a constant reminder to patient and surgeon of an important event in a human life. It is the one thing that remains uppermost in the mind of the patient long after the disease for which the operation was performed is forgotten. In exposed parts, especially neck and face, an unsightly scar is embarrassing.

There are two essential factors in the production of a minimum scar, viz.: asepsis and the proper coaptation of tissues. The former is impossible, the latter is rapidly being perfected. The older method of interrupted sutures which was devised with the thought in mind that if one suture gave way, owing to sloughing, the remainder might hold, has largely been replaced by the continuous. The right-angle subcuticular suture is an excellent one for closing the skin and is the one now in general use.

After experimenting on dogs, Dr. Ryfkogel and I have put into use, in the former's clinic and in our private work, the following method for closing wounds. For example, in the closure of a laparotomy wound, the peritoneum is closed with No. 00 iodized catgut, the serous surfaces being approximated by a right-angle suture. One, two or three silkworm-gut tension sutures are placed through the remainder of the abdominal wall and left untied. The muscles are drawn together by No. 00 iodized catgut, and the fascia either overlapped according to Moynihan, or the raw edges approximated with No. 1 chromic catgut. The space between muscle and skin is obliterated, as the case requires, with No. 00 iodized catgut. A similar suture is run close to the skin, which is closed by a continuous suture of china-bead silk carried by a No. 16 embroidery needle. The stitches are placed nearly two- thirds of a centimeter apart and include nearly one millimeter of the edge of the skin in their grasp. A collodion strip is placed over the wound and the tension sutures are tied over a bolster of plain gauze.

The apposition of the skin is almost perfect, there being no spaces left in which blood clots may form. The wound is inspected within three days. When the sutures have served their purpose they can be wiped off with a dry sponge, leaving an almost invisible scar.

We have not attempted to keep any record of these cases, but so far there has not been one bad result.

1871 Sutter Street.

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* From the Research Laboratory of the University of California.

Syphilis of the Upper Air Passages.—W. A. Lieven (*Journal of Laryngology*, March) states that tertiary processes in the larynx require energetic general treatment as there is a marked tendency to cicatricial narrowing of the larynx in these cases.

Therapeutics

ACUTE CHOREA

Although there is nothing new in our knowledge of the best treatment of this disease, it may be well to rehearse our present understanding of chorea, as well presented by Charles H. Scribner, Patterson, N. J., in the *Journal of the Medical Society of New Jersey*, February, 1909.

The pathologic disturbance which causes the muscular movements which are termed chorea seems to be principally located in the brain, and the great variety of movements and their generalization in severe cases of chorea show that there are irritations in various parts of the cerebral cortex and basal ganglia. The symptoms referable to cerebral irritations are, besides the muscular movements, mental irritability, sleeplessness, troublesome dreams, night terrors, impaired memory, and various hallucinations of sight, taste, and smell. Besides anemia and disturbed menstruation in young girls, often amenorrhea, a most frequent complication is endocarditis.

It is probable that chorea is due to an infection, and this infection is doubtless closely associated with the micro-organisms that cause acute inflammatory rheumatism. There is no reason to believe that the disease of chorea is contagious, but neither is rheumatism. Still, it is wise to isolate a child, not only for its own sake, but on account of other children involuntarily mimicking the movements of the patient, and imitative chorea is an accepted condition.

The earlier the patient is taken from school and put to bed in good hygienic surroundings, or, if the case is very mild, taken where, with the least exertion, noise and confusion, he or she may have the most fresh air and sunlight, the less likely is the chorea to be severe.

The success of any medicinal treatment must be judged by the accepted fact that chorea is self-limited, and the intensity of the symptoms will abate in from two to four weeks. Arsenic, in the form of Fowler's solution, the dose being increased by one minim a day until the full physiologic effects are obtained, is the treatment that is most lauded and many times apparently the most successful. On the other hand, it often fails, and it is possible that in the many mild cases in which it apparently succeeds it is successful only because the disease is self-limited. Doubtless many cases of neuritis and blood deterioration have followed in the steps of chorea because too much arsenic has been used, and it certainly does not seem advisable, in a disease that is apparently self-limited, to give a poison in sufficient amount to produce poisoning to attempt to shorten the disease. Scribner says that as soon as the lids become puffy, or gastrointestinal symptoms develop, the dose should be decreased again to the starting point.

To reiterate, it does not seem advisable to use a drug so foreign to the system as arsenic to the point of serious symptoms (and it should be remembered that when puffing occurs under the eyes from arsenic there is also generally albumin in the urine). When, during its administration, choreic movements cease, it is by the self-limitation of the disease, or by the arsenic causing some debility of the nerves, if not an actual neuritis.

Scribner states that antipyrin is one of the most valuable of drugs in lessening muscular activity and easing the pains that may be present in the muscles and joints. This drug is valuable in relieving muscular contractions, but must be given in good doses and not continued too long, and if during its action the heart is protected with small doses of digitalis it certainly is not any more dangerous a treatment than is arsenic.

The salicylates and salol (the latter in small doses) are as valuable in chorea as is arsenic, and they would certainly seem indicated when there are painful and swollen joints, as frequently occurs in chorea.

If the movements from the disease are so severe as to cause injury to the patient, or even to endanger life from continuous sleeplessness, Scribner advises the chloral treatment. Chloral for this purpose, according to Forchheimer, "is given in five-grain doses every four hours the first day, and two and one-half grains are added to each dose the second day, and these second-day doses are repeated on the third day until the proper effect is produced. This means that the patient should be kept asleep until the choreic movements have ceased for about twelve hours." The amount of chloral administered on this plan sometimes may be enormous, considering that it is a child that is generally being treated. Of course the heart should be carefully watched, but it generally withstands the treatment well. Forchheimer states that, in his experience, "this treatment has always resulted in one of two ways: either the child wakes up cured (i. e., without any form of chorea), or the grave form has been converted into the mild form."

Scribner says that the extreme danger to life of the severe form of the disease, and the really wonderful results of the chloral treatment, justify the risk.

HEADACHE

Of all painful conditions this is the most frequent and the one that is the least tolerated; hence the nostrums for its treatment are legion.

It should be the aim of the physician to make a diagnosis of the cause of a headache. The acute headaches occurring in feverish processes may be due to increased temperature and the increased rapidity of the heart causing an actual increased cerebral pressure, or may be due to a toxemia from the products of infection. Anything that reduces the temperature, lowers the blood pressure, and cleanses the intestines of feces, products of fermentation, putrefaction, and old bile, will relieve this kind of a headache.

If the headache is due to cerebral hyperemia without fever, anything that will relieve the blood pressure, as dilating the peripheral blood vessels, or putting the feet into a hot bath, will be efficient treatment.

If the headache is due to cerebral excitement (often perhaps caused by an increased blood pressure), it will be relieved by anything that lessens cerebral activity, as bromids and chloral.

If the headache is due to venous congestion, as from cardiac insufficiency or from arteriosclerosis, nitroglycerin by dilating the superficial blood vessels may be expected to relieve the headache. Posture and the addition of another pillow at night will often relieve this headache. If, with cardiac insufficiency, there is headache when the patient is up and about, digitalis may relieve it.

Headache may also be due to anemia and low blood pressure, as in neurasthenia. In these conditions a slight serous exudate may occur at night in the brain similar to that which occurs in the extremities during the day. Such headaches are relieved by iron, sometimes by vasoconstrictors, and at times by calcium.

The most frequent causes of toxic headache are constipation, intestinal fermentation, kidney insufficiency and liver insufficiency. In the first instance free daily movements of the bowels, and such dietetic and medicinal treatment as to prevent fermentation will also prevent the headaches. In kidney or liver insufficiency the diet should be so arranged as to allow the easiest metabolism and the most perfect elimination of waste products, and the headache will be less.

Actual inflammation of the meninges of the brain is, of course, the cause of intense headache. Such headache can only be combated by narcotics and the inhibition of the inflammation. If the pressure from the products of inflammation or exudation becomes sufficient to allow of draining by spinal puncture, this may relieve the headache, even if there is not sufficient fluid to cause coma.

The persistent headache from a cerebral tumor can only be cured by the removal of the tumor, or, perhaps, by trephining and thus relieving cerebral pressure.

The headaches of post-epileptic attacks may be due to a slight exudate in the ventricles of the brain, or to a congestion of the meninges, and will generally be relieved by bromids.

The terrible, typical migraine attacks are also perhaps due to toxic irritants circulating in the blood much as are the unexplained epileptic attacks. Such headaches are relieved only by stronger narcotics and time. Such attacks, as well as epileptic fits, may be prevented by the most perfect possible regulation of the stomach and intestines and such modification of the diet as will prevent the formation and absorption of toxins.

The post-alcohol and post-ether headaches are probably due to exudates into the cerebral cavities, and the toning up of the circulatory system with ergot, digitalis and strychnin would seem to be the best treatment.

Of all causes of headache far and away the most frequent is eye-strain. While there are a few enthusiasts who go too far with the eye reflex theory as a cause of many nervous disturbances, and while it is not necessary under the discussion of headaches to prove or disprove or defend other reflexes that may occur from eye tire, it is a positive, incontrovertible fact that defective eyes cause more headaches than all other causes put together. Unfortunately, if this cause is not corrected early in life before the headache habit has been acquired, the human neurotic mechanism so readily develops a nervous habit that the headaches recur throughout life.

It is not to be understood for one moment that a headache should be considered ocular unless all other more serious causes have been excluded. Such causes having been excluded, a careful consideration of when, how and why the patient has headaches should so impress the investigator with the probability of ocular defect that he should insist on his patient consulting an oculist before allowing him to become a chronic headache sufferer, or to seek help from physician to physician, or to take "patent medicines" for relief. The eyes of such patients should be carefully examined and ocular defects found or excluded.

It should be carefully impressed on the patient that if an ocular defect is found, and if apparently the right lenses are given him, that, in the first place, the decision of the exact ocular defect, even by the best ophthalmologists, is not absolute, and that it is no more an exact science than is internal medicine, and that an eye showing a defect to-day may show a different defect a few months or even a few weeks hence. The patient ought also to understand that he should have the prescription for lenses put up, and then have the lenses adjusted to his eyes by the very best optician he can find. He should also be told, if he has astigmatism, that the least bending of the frames of his glasses or spectacles will not only make the correction *nil*, but perhaps cause more eye pain and headache than he had before. Hence astigmatic lenses should be frequently straightened by the optician. The patient should also be told that however perfectly his lenses fit his eyes now, a year or more hence they may not fit at all. Consequently, careful examination of a patient with headaches having proved to both the physician and the consulting oculist that the trouble is due to eyestrain, should cause that patient to remember that it is the oculist to whom he should look for the cure of a recurrence of his headaches.

Considerable time has been spent in discussing the prevention of eye headaches for the reason that eyestrain is the most frequent cause of headaches, and their treatment by the laity is making weak hearts; and weak general circulation is becoming the bane of the treatment by medical men of all acute disease or post-operation conditions. This is due largely to the fact that civilized people frequently take large amounts, or repeatedly take small amounts, of coal-tar antineuralgic drugs, and the most frequent cause for the taking of such drugs is headache. Consequently, anything that will prevent frequent headaches will prevent many unnecessary deaths. The amount of acetanilid, antipyrin, and now phenacetin (acetphenetidinum) that is consumed in this country is enormous, mostly through the medium of nostrums, especially headache powders and tablets. Though the pure food and drug law now compels the proper labeling of such products, the laity still does not understand the dangers from these drugs, or their pernicious action on the heart and blood. From an ordinary dose death does not often occur, but, unfortunately, the deteriorating action on the blood and circulation from these drugs goes on unrecognized, and they have now become the most frequent cause of anemia, neurasthenia and general circulatory debility in this country to-day.

It is hardly necessary to mention the reflex head pain that may come from a bad tooth, from an inflammation in the antrum of Highmore or the frontal sinus, or from inflammations in the ear, as these diagnoses of causes of headache should be readily excluded.

It should be remembered that frontal headache is frequently caused by syphilis.

It should also be remembered, if there is insufficient pulmonary ability, whether from tuberculosis, emphysema, pleurisy with effusion, or asthma, that this lack of proper aeration may cause headache.

At times gastric hyperacidity and uterine displacements may be reflex causes of headache, but such causes are rare.

The wearing of heavy hats and heavy masses of hair may be the cause of headaches in girls and young women, to say nothing of the pernicious spotted veil.

MALIGNANT GROWTHS

Although we can not yet declare the exact method by which mercury inhibits the activity of the germ of syphilis, nor exactly how it removes or causes absorption of small-celled specific growths, it is a well-known fact that mercury has the power not only to do this, but if long enough administered, can prevent syphilitic recurrences.

Dr. Bucher, Fort Lyons, Colo., has recently declared that small doses of mercury have greatly improved patients with tuberculous laryngitis, and improved tuberculous infiltrations of the lungs. The mercury in these tuberculous cases is given subcutaneously. This, then, would seem to indicate that at times mercury may remove a small-celled infiltration that is tuberculous.

Now Dr. William L. Harris, Providence, R. I. (*New York Medical Journal*, Feb. 27, 1909), states that for more than four years he has been using mercury hypodermatically to remove carcinomatous growths and infiltrations, and with apparent success. Such treatment is not instead of operative treatment, but as an adjunct to operative treatment. He considers that the treatment should extend over two or three years, and that the earlier it is begun the better. "For two months after operation for carcinoma" he "injects hypodermatically 1/2 grain of a soluble iron salt and 1/24 grain of arsenous acid." He also "administers subcutaneously 2 1/2 grains of salicylate of mercury, and repeats this every ten days for four times; then he administers 1/2 grain or 1 grain every fifteen or twenty days for the first year." In the second year he "administers 1 grain of the mercury every ten days until 10 grains have been taken, and then 1/2 grain once a month." He states that lately he has been using "the succinimid of mercury in 1/5 grain doses, subcutaneously, administering this dose every five or ten days for ten doses, and then every fifteen or twenty days." The iron and arsenic injections he states he gives from time to time as a tonic.

He is very careful not to give the arsenic frequently enough or in a dose sufficient to cause salivation, and therefore watches each patient carefully. He also would not use it in an anemic patient, and during its administration frequently counts the red blood corpuscles to note the condition of the blood. He thinks that the combined iron and arsenic treatment is beneficial both to the patient and to the best action of the mercury.

Harris believes that this mercury treatment is inhibitory to the cancer germ or to cell proliferation.

Harris does not state why he thinks that iron and arsenic are more beneficial when administered hypodermatically than when given by the stomach. There certainly seems to be, many times, an advantage in administering mercury subcutaneously rather than by the mouth or by inunction, but if mercury is beneficial in carcinomatous conditions it would probably also be of benefit when given by the mouth. In any case, the experimental dose of mercury for the treatment of cancer would be small.

Carcinosarcoma of the Ovaries.—Forssner, in *Hygiea Festband*, adds two new cases of this rare form of tumor to the small number already recorded in the literature, in all not more than eight or ten. Whether the tumor develops as a mixed one from the beginning or whether a carcinoma and a sarcoma originate independently and perhaps subsequently coalesce, in either case the different tumor tissues present the same characteristics as ordinarily observed on part of the tumors when occurring in the uterus independently; thus the carcinoma in the case is either a so-called malignant adenoma or a adenocarcinoma and the sarcoma tissue may be either round, spindle or giant-celled.

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[*For other information see second page following reading matter*]

SATURDAY, APRIL 24, 1909

ADVANCES IN KNOWLEDGE OF INFECTIOUS ENDOCARDITIS

Infectious endocarditis presents problems of great interest to the student of infections. First there is that much discussed but still unsettled question: Why is the left side involved so much oftener than the right? And then, in the cases that run a more protracted course, the problems of the complicated mechanisms whereby a focus of infection in the middle of the blood stream is permitted to maintain itself for so long a time naturally press forward for some attempt at solution. In connection with these and other phases of infectious endocarditis the results of the investigations of Rosenow[1] merit special notice.

In the first place, Rosenow, on the basis of a considerable experience, emphasizes strongly the diagnostic value of blood cultures, especially in the early stages of infectious endocarditis. Blood cultures may serve not only to establish the existence of endocarditis, but also the etiologic nature of the process. Blood-agar is recommended as more likely to give growth than broth, especially in pneumococcus endocarditis, and because of the additional advantage that the number of colonies which develop may be made use of to estimate the number of bacteria in the blood from time to time.

Most of the cases of endocarditis studied by Rosenow were caused by pneumococci. One was caused by a staphylococcus. When first isolated from the blood these bacteria presented certain special and peculiar characteristics which soon were lost on artificial cultivation, namely the faculty of adhering firmly to solid surfaces and of growing in clumps, especially in the presence of oxygen. When still possessed of this property they readily caused endocarditis in rabbits on injection of large quantities, even though no experimental injury was first inflicted on the valves or other parts of the endocardium. Simultaneously with the loss of the peculiar cultural characteristics the bacteria also lost the power to localize on the endocardium and to produce changes there. In some instances, the experimental endocarditis was progressive, but in many cases more or less healing took place. Rosenow is inclined to see in the peculiar characteristics of the bacteria in question an explanation in the first place of their power to produce endocarditis (especially of course in the rabbits) and then also of the greater frequency of involvement of the left side because the adhesive tendency is more pronounced in the presence of oxygen. The fact that the special characteristics were readily lost raises the question whether they were not acquired during the growth on the endocardium and in the blood of the patient—in other words a result rather than a cause of endocarditis. Nevertheless, the readiness with which endocarditis could be produced experimentally so long as the special characteristics were retained certainly indicates the importance these properties may have in leading to localization on the endocardium.

On isolation from the blood and, in some of the cases, from the endocardium after death, the pneumococci were of only minimal virulence for rabbits, and as would be expected in view of this fact, freely susceptible to phagocytosis by human and other leucocytes in the presence of serum. When pneumococci are isolated from the blood of pneumonia patients they are virulent for rabbits and insusceptible of phagocytosis by normal leucocytes in normal serum. There consequently exists a profound difference in the strains from each of these two diseases and the question naturally comes up: How can apparently avirulent pneumococci exist in the blood and cause endocarditis and the other lesions? Rosenow's attempts to analyze the mechanism of immunization of the pneumococci against the antibodies of the patient give results that are highly interesting. He found that not only did the pneumococci grow better in serum of the patients from whom they were obtained than in normal serum, but that they also possessed a distinct power to resist phagocytosis by the patient's leucocytes. This immunity of the pneumococci seems to have been limited strictly to the blood of the patient in whom they had existed—a remarkably specific adaptation. Furthermore, while normal leucocytes in the patient's serum and patient's leucocytes in normal serum would cause active destruction of the pneumococci, the patient's leucocytes in the patient's serum might not cause any destruction. Growth of pneumococci in the patient's serum would render them more resistant to phagocytosis than growth in normal serum. The acquirement of this resistance to phagocytosis appears to be closely dependent on some heat-sensitive property of the serum, because when grown in heated serum the cocci remained susceptible to phagocytosis. In other words, pneumococci under certain circumstances immunize themselves against the antibodies of the host, and as this immunity is limited strictly to the antibodies of the individual host we seem to stand here before an adaptation of remarkably narrow specificness. This, then, may be the explanation of the fact that apparently avirulent bacteria may maintain existence for months in the blood and heart of the endocarditis patient and sustain a more or less active endocarditic process—the bacteria become immune to the antibacterial substances of the particular patient.

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[1] The Journal A.M.A., Nov. 7, 1908, p. 1571; Jour. Infect. Dis., 1909, vi. 245.

Finally, notice should be taken of the fact that in Rosenow's cases the therapeutic injection of dead bacteria had no influence on the course of the disease.

The discovery of the peculiar adhesive tendency of certain bacteria when freshly isolated from cases of endocarditis and the immunity of such bacteria to the anti-infectious powers of the patient's blood, constitute important additions to our knowledge of the pathogenesis of endocarditis and to the rôle of adaptation of bacteria in maintaining infection.

TYPHOID FEVER AND MECHANICAL FILTERS

As is well known, there are two principal methods in use in this country for purifying public water supplies. The older of these is the slow sand filtration method practiced for many years in England, Holland and Germany, and long proved to be an efficient safeguard against water-borne infections. When this system is employed with relatively clear waters the difficulty and expense of operation, due largely to the frequent scraping-off of the surface layer of sand, are not great, but if a very turbid water has to be treated the rapid clogging that results makes the filter practically unworkable. Muddy waters, therefore, are usually clarified by the addition of suitable chemicals, such as aluminum sulphate. Many special forms of apparatus for this purpose have been devised and are in use in different parts of the United States. They all agree in providing for mixing the chemicals with the water in proper proportion and then, after a more or less complete settling process for passing the water at a relatively rapid rate (*e. g.* 125,000,000 gallons daily) through beds of sand arranged so as to be conveniently cleaned by back-flushing. Various mechanical appliances are used in effecting these results and the name mechanical filter is commonly applied to this type of apparatus.

While the principles of construction and operation of the slow sand filters have been well worked out, and beneficial results from their installation have been generally noticed, the newer mechanical filters are, so to speak, still on trial, particularly as regards the conditions that determine their sanitary efficiency. Some sanitarians have been disposed for this reason to oppose the introduction of mechanical filters and to advocate on all occasions the installation of slow sand filters. Since it has been abundantly demonstrated that the latter type is not at all adapted to the treatment of the highly turbid surface waters common in many parts of the United States, a more rational attitude would seem to be to watch closely the operation and effects of the mechanical filters perforce installed in many places and learn how to avoid or overcome the weaknesses inherent in the system.

One of the anticipated difficulties in the management of the mechanical filters has been the estimation of the proper amount of coagulant that should be added under varying conditions. If this matter is left to inexpert or inexperienced hands, it is clear that filters operated on this principle may be very far from successful. That the possible danger from this source is not an imaginary one is shown by certain experiences with a mechanical filter at Conneaut, Ohio, recently narrated by the Ohio State Board of Health.[1] The filters at Conneaut, a city of about 9000 inhabitants, are of types that use aluminum sulphate as a coagulant. The character of the raw Lake Erie water on which these filters operate does not seem to be very bad at certain seasons, but at other times the sewage-polluted Conneaut river flows over the intake, producing a condition by no means easy to remedy. Several epidemics of typhoid have occurred at Conneaut since the filter plant was installed. The last of these, in 1906-1907, was thoroughly investigated by the Ohio State Board of Health, and evidence was secured that the water supply was the chief cause of the outbreak. It was found, further, that a connection apparently existed between the time of infection of many cases and known irregularities in the operation of the filter plant. Among the features that tended to produce poor results are enumerated improper methods of operating the filter, lack of sufficient sedimentation after addition of the coagulant, lack of sufficient filtering capacity and extremely small storage for filtered water at the plant.

The occurrence shows, first, the lack of protection against typhoid fever afforded by badly managed mechanical filters, and second, the necessity for such thorough investigation as that undertaken in Ohio. No filter can be expected to distinguish automatically between pure water and water containing typhoid bacilli.

A SANE NEWSPAPER VIEW OF ANTIVIVISECTION

We recently called attention to the awakening of the lay press in regard to a sound and well-informed knowledge on medical matters of public interest, citing as an example the admirable comment of the Philadelphia *North American*[2] on the Tuberculosis campaign. We now welcome two sane editorials in recent issues of the St. Louis *Republic* in reference to the "antivivisection" outburst. "Dr." Still, of osteopathic fame, has recently urged a law for Missouri prohibiting all animal experimentation. To this the *Republic* replies by pointing out that not so long ago, Mr. Still—not then a "doctor of osteopathy"—"appeared as a humble suppliant before a committee of the Missouri legislature to plead for his right to follow the practice of healing according to the light of his own thought and theories, regardless of the opinions and presuppositions of others" —and got it. "This," says the *Republic,* "was hailed as a triumph of the principle of free investigation, of the right to seek the good of humanity, untrammeled by precedent and formal method."

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[1] Report on Water and Sewage Purification in Ohio, 1908, pp. 82-92.

[2] THE JOURNAL, March 27, 1909, p. 1042.

"And now comes an effort to have the parts in the play reversed. It is Doctor—by grace of the triumph of the principle of freedom in the healing art—Doctor Still, himself, and no other, who would play camel to the M.D.'s Arab, and put the regular practitioner out of the tent because his methods do not commend themselves to Doctor Still's refined sensibilities. It is the erstwhile suppliant who would now dictate the terms on which scientific research should go on in the medical colleges and universities of Missouri!" As to the bill itself, the *Republic* aptly says: "It might fitly be termed 'an act to substitute children and their parents for dogs, cats, and mice in surgical experiments.' "

Of the antivivisection movement in general, the *Republic* says: "The antivivisectionists have broken out again. Miss Lind-af-Hageby has come clear from Sweden to assure us that she 'does not believe that there has been any decrease in deaths from diphtheria since the introduction of antitoxin,' and other things which are of like interest, as showing what a young woman, when she sets her mind to it, can contrive not to believe."

No one knows better than the conscientious scientist the power of mental predisposition, conscious or unconscious, in "contriving" belief or disbelief in facts. If he has to keep himself constantly on guard against it, how much more should even the most positive beliefs of professional agitators be received for what they are worth!

ERADICATION OF THE PLAGUE IN SAN FRANCISCO

The nation owes a debt of gratitude to San Francisco, not only for averting from the whole country an impending danger, but for affording to other cities a model of sanitary policy and execution. Ordinarily, the public, and even the medical profession, are inclined to throw the whole burden of sanitary administration on the health authorities—a fact which allows politics to place in power an inefficient health board or hamper and neutralize the efforts of a capable one. While in her dealings with the first epidemic, San Francisco allowed politics to exert a baneful influence, in the last one the united and awakened community presents the spectacle of politics replaced by enlightened statesmanship; thus she has eradicated from her limits bubonic plague, which threatened to decimate not only a single city but the entire country.

The story is well told in the lately published report of the Citizens' Health Committee, and it is universally acknowledged that the result was largely due to the wisdom and tact of Passed Assistant-Surgeon Rupert Blue, in command of the federal sanitary administration at San Francisco. The experience of the city demonstrated two things very clearly: first, the efficiency of the United States Public Health and Marine-Hospital Service in emergencies of this kind; and second, the value of the cooperation of the lay public. Previous to the outbreak of this epidemic the most erroneous notions prevailed regarding the plague. It was said to be a disease affecting orientals only, a filth disease, one due to vegetarianism, a disease which had always existed in Asia but need not be feared in America.

The *first epidemic* was confined to Chinatown and was eradicated by rat-proof building. The outbreak of the recent epidemic was from several foci and the striking fact was ascertained that practically the only part of the city exempt was Chinatown. The disease affected Americans of the middle class, among whom reasonable cleanliness prevailed, and the mortality, although smaller than among the orientals, was sufficiently appalling, viz., 48 per cent.

The work of eradication was a war on the rat. This demanded the starving, poisoning, trapping, and destruction by other methods, of at least 2,000,000 rats. In order to make the work effective, it was necessary to enlist the cooperation of all classes of the community in making garbage and food supplies rat-proof as well as in the actual capture of the rodents. Not only employers, tradesmen, restaurant keepers, butchers, grocers, teamsters, householders, but even school children were pressed into service to rid the city of rats. Everyone was incited to clean up his own premises and to see that his neighbor did the same. Not only were plague-bearing rats hunted out and killed, but an immense amount of work was done in laying concrete sidewalks and foundations, which with other forms of rat-proof building gives reason to hope that the plague will not again gain a foothold in the city.

The investigations of the health authorities showed that the plague among rats continued and even increased after the human cases had disappeared. This fact renders it advisable that rats should be periodically examined for the plague, so that the slightest evidence of recurrence among animals may be met by prompt and energetic measures to suppress the epizootic.

The example of San Francisco should lead other municipalities to meet their sanitary problems in the same united and determined way. Especially the seaports should remember that the introduction of plague is an ever-present danger which should be warded off by efficient measures against rats.

JAPAN, AND OPIUM IN CHINA

We have heard much in late years of the efforts of the government of Japan to keep opium out of that country, and it would indeed appear that it is meeting with praiseworthy success in the endeavor. The Japanese do not seem, however, so anxious to prevent the Chinese from suffering from the evil; according to one writer, Mr. John Stuart Thomson,[1] who seems to speak by the card, they are flooding China with cheap hypodermic syringes and encouraging the morphin habit in that land while discouraging it in their own. It is reported that they are reducing the number of opium-smokers in Formosa, but Mr. Thomson says that they do not apparently look with as much concern on the growth of the habit as does the Chinese government, for in one month alone of this year 30,000 new licenses, at 30 sen each, "good for life," were issued to Formosans. This probably means that, while the intentions of the Japanese government may be good, it has not yet carried any legislation so far as to check the unscrupulous commercial instincts of some of their people. It will be one of the good results of the Shanghai conference if the resolutions there adopted can be honestly accepted and given the force of laws by Japan as well as the other powers.

THE HOMES COMMISSION REPORTS

Several times recently we have commented on the valuable and interesting data collected by the President's Homes Commission and published in its official reports. These reports, it will be remembered, compose the document whose transmission through the mails one of the United States senators tried to have prohibited. As we remarked at the time the immediate result of this action was to cause the document rooms of the House and Senate to be stripped of the reports, many of those who had access to them at once hastening to obtain what was fondly imagined to be a salacious morsel. Of course, no material of this sort is contained in the reports; they do contain, however, a vast amount of information very damaging to "patent medicine" and other equally vicious "interests." Whether this fact bears any relation to the attempt made to refuse mailing privileges to the document, can only be surmised. In any case the attempted suppression has been partly successful. A number of physicians have written us that their senators have been unable to furnish them with copies as the supply is exhausted. It is of interest to learn, however, that a limited number of copies are held for distribution by the commission itself.[2]

PRACTICAL EXAMINATIONS FOR THE MEDICAL LICENSE

An important step recently taken that will have a tendency to raise the standards of medical education is the inauguration of the practical examination by two state examining boards, those of Ohio and Massachusetts. During the written examination, in June, in Ohio, each of the one hundred and sixty-one applicants was called on, in the presence of the entire class, to make a urinalysis and to identify under the microscope histologic, pathologic and bacterial specimens. It required about 30 minutes for each applicant to complete the practical test; he was then given an extension of time to finish his written examination. The results were reported as highly satisfactory. The Massachusetts board required each applicant to give a demonstration on the obstetric manikin and to make a urinalysis, as well as to identify specimens under the microscope. It was stated that many who took these practical tests seemed totally unfamiliar with the microscope. The board proposes in its future examinations to require also the use of the stethoscope as well as demonstrations on the cadaver and the application of bandages and surgical dressings. It has recently been announced that within the next few months the boards of Minnesota and Indiana will require, in addition to the written examination, practical tests in histology, pathology, bacteriology and urinalysis. These practical tests have long been required in the medical license examinations in other countries. Their requirement by state licensing boards in this country is, indeed, most important and timely. They enable the boards readily to differentiate the applicant who has undergone merely a cramming process by "quiz-compend" methods from one who has had training in practical laboratory and clinical work. Since the necessary apparatus and material for making these tests are so easily obtained, it is hoped that many state boards will soon require them as a part of the license examination.

Medical News

ALABAMA

Commencement.—On April 19, the commencement exercises of Birmingham Medical College were held, when a class of thirty was graduated. The address of the evening was delivered by Dr. George T. McWhorter, Riverton; Dr. Benjamin L. Wyman presented the diplomas and Dr. Hogan gave the charge to the class.

Personal.—Dr. S. H. Newman, Dadeville, was thrown from his buggy in a runaway accident April 6, breaking his left leg below the knee.——Dr. Morris Henry has been elected city physician for Tuscumbia, Dr. Walter A. Maxwell for Sheffield, Dr. Charles W. Williams for Cherokee, and Dr. J. H. Masterson for Leighton by the Colbert County Medical Society.——Dr. Neal B. Sewell, Wetumpka, was painfully injured in a runaway accident, April 6.

ILLINOIS

Personal.—Dr. Samuel M. Wylie, Paxton, who has been ill for several weeks, is recuperating in Citronelle, Ala.——Dr. Laban A. Burr, Bloomington, is reported to be seriously ill with heart disease.

Cornerstone Laid.—Ceremonial arrangements have been completed for the laying of the cornerstone of St. Francis Hospital, Evanston, by Archbishop Quigley, April 25. The new building will accommodate 350 patients, and is expected to cost more than $250,000.

Labor Union Opposes Tuberculosis.—The State Federation of Labor has decided to cooperate actively in the fight to stamp out tuberculosis. Literature dealing with occupational diseases, and particularly with tuberculosis, giving full information concerning symptoms of the disease, and the work being done for its eradication, is to be distributed by the federation among the 500,000 trade union members in the state.

Chicago

Resigns from Staff.—Dr. Lucy Waite announces that she has resigned as head surgeon of the Mary Thompson Hospital and has retired from practice.

New Hospital Plans.—The new building of the Maimonides-Kosher Hospital is to be erected on a site purchased by the directors on California avenue near Fifteenth street. The building will be six stories in height and will cost more than $75,000.

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[1] World To-Day, April.

[2] Physicians desiring copies of the report should address the "President's Homes Commission, 923 H street, Washington, D. C.," enclosing 19 cents to cover cost of mailing.

Health Department "Donts."—The department of health, in the current bulletin, makes the following suggestions to the public to bring about a reduction of the cases of, and deaths from communicable diseases:

1. Don't belittle the gravity of a sore throat—call in your physician without delay.
2. Don't think that every attack of vomiting and a "breaking out" of the skin is due to overloading of the stomach—follow the same course as above.
3. Don't let the good ladies of the neighborhood diagnose what disease your child is suffering from.
4. Don't seek immunity from the observance of health regulations.
5. Don't ask your physician not to report a case of scarlet fever or diphtheria—it is his duty to do so.
6. Don't allow visitors when you have contagious disease in the house—likewise don't make visits.
7. Don't in any way try to evade, shirk or disregard any of the regulations made by the health department. They are made for your own good and for the protection of the community.
8. Don't put the well children with the sick—as is the practice in many ignorant families—so that they may catch the disease and "be over with it." It is a dangerous practice, contrary to all reason and principle, resulting in the needless sacrifice of many lives and the pitiful crippling of many that survive.
9. Don't—once more—don't allow any form of close association such as eating, playing and sleeping together of those recently recovered from a contagious disease (even for some time after the house was disinfected) with the other children who have been kept apart from the patient during the illness and who had not the disease previously.
10. Don't clamor for the premature termination of your case by the health department. When this is done it surely results in the infection of many others by those prematurely released from quarantine.

INDIANA

Condemns Insanitary School Houses.—The State Board of Health, after making sanitary surveys, has condemned 24 school houses on account of insanitary conditions.

Tent City to Be Erected.—Plans for the proposed tent city for tuberculosis patients were discussed at the meeting of the South Bend Antituberculosis Society, April 14, and an agreement was made to proceed with the scheme, and to establish three shacks at the Orphans' Home, Mishawaka, at once, and to locate others in South Bend in the very near future.

Personal.—Dr. George T. MacCoy, Columbus, has been elected president and Dr. William N. Wishard, Indianapolis, vice-president of the State Board of Health.——Dr. Marcus H. Thomas, Huntington, it is announced, has decided to give up the practice of medicine on account of ill health.——Dr. Frederick W. Sauer, Indiana Harbor, is reported to be ill with typhoid fever.

Lose Licenses.—The State Board of Medical Examination and Registration, on April 13, after hearing evidence against Dr. James M. Towey, Clinton, charged with having issued prescriptions for intoxicating liquors to be filled by druggists on Sundays and legal holidays, and after receiving his plea of guilty, is said to have revoked his license.——At the same meeting, the board declined to take up the question of reissuing the license of Dr. Charles L. Landfair, Bluffton, which was revoked when he was convicted of criminal practice.

March Sickness and Death.—During March, there were reported to the State Board of Health 3,444 deaths, or 243 more than for the correspondnig period of last year, the respective death rates being 14.8 and 13.8 per 1,000. The order of prevalence of disease was as follows: Tonsillitis, pneumonia, influenza, bronchitis, rheumatism, measles, scarlet fever, typhoid fever, whooping cough, diarrhea, intermittent fever, diphtheria, chickenpox, erysipelas, smallpox, inflammation of the bowels, dysentery, puerperal fever, cholera morbus, cerebrospinal meningitis, and cholera infantum. There were 574 deaths from pneumonia, 410 from tuberculosis, and 191 from violence during the month.

KENTUCKY

Sanitary Campaigns.—At a joint meeting of the State Board of Health and the State Federation of Woman's Clubs, held in Louisville, April 10, plans were discussed for making a general thorough inspection of the sanitary conditions of the state as they apply to general cleanliness and health, and it was urged that a more rigid, wide-reaching sanitary inspection law be passed and enforced.

Personal.—Dr. W. A. Kipp, Louisville, who has been in Central America for three years, is reported to be seriously ill with diabetes at the Deaconess Hospital, Louisville.——Dr. Joseph J. Back, Newport, and J. Frank Houston, Alexandria, while examining the mental condition of a farmer at Ten Mile, were attacked and assaulted by the patient.——Dr. John K. Wood, first assistant physician at Central Kentucky Asylum, Lakeland, who has been seriously ill, is reported to be improving.——Dr. Sidney B. Johnson, Bowling Green, was stricken with paralysis April 2, and is reported to be in a critical condition.

LOUISIANA

Tuberculosis Building Condemned.—The Shreveport Board of Health, on April 13, condemned and ordered burned the tuberculosis building of the State Charity Hospital, considering it dangerous to public health.

Hospital Enlarged.—St. Mary's Hospital and Training School for Nurses, Patterson, has recently been enlarged from a capacity of 15 to 25, and it is expected soon to further increase its capacity to 40 patients.

Parish Society Meetings.—At the annual meeting of the Calcasieu Parish Medical Society, held in Lake Charles, April 6, the following officers were elected: President, Dr. Norman S. Craig, Jennings; vice-president, Dr. Temple B. Smith, Lake Charles; secretary-treasurer. Dr. S. George Keeger, Lake Charles (re-elected), and delegates to the state society, Drs. Thomas H. Watkins, Lake Charles; Valerion A. Miller, Lake Arthur; Edward R. Gandy, West Lake, and the president.——At the last session of the Webster Parish Medical Society, held in Minden, Dr. R. Ernest Smith, Minden, was elected president; Dr. Joseph G. Gladney, Minden, vice-president, and Dr. Robert H. Johnson, Lanesville, secretary-treasurer.——At a special meeting of St. Tammany Parish Medical Society, held in Mandeville, March 31, the following officers were elected: President, Dr. George R. Tolson, Covington; vice-president, Dr. Louis M. Thomason, Mandeville; secretary, Dr. Henry E. Gautreaux, Covington; treasurer, Dr. Phau R. Outlaw, Slidell; delegate to the state society, Dr. James F. Pigott, Covington, and alternate, the president.——Physicians of Livingston Parish met in Denham Springs April 3 and organized a medical society with the following officers: Dr. Thomas B. Odom, French Settlement, president; Dr. William W. Faust, Albany, vice-president; Dr. Montgomery Williams, Denham Springs, secretary, and Dr. William H. Bridges, Weiss, treasurer.

MARYLAND

New Hospitals.—A large hospital building is to be erected for a state tuberculosis sanatorium near Sabillasville, for patients in advanced stages of the disease. It will be a frame building two and a half stories in height with wide verandas.——The new cottage for women at Springfield Hospital for the Insane, Sykesville, is almost finished and will accommodate 75 patients and cost about $30,000.

Baltimore

Deceased Doctor Rich.—More than $22.000 in coin and currency is said to have been found in the pockets of Dr. George G. Farnandis, who died April 4. He is said also to have left ground rents and other property to about the same amount.

Personal.—Dr. Victor B. Rench, for two years clinical assistant and assistant surgeon in the Baltimore Eye, Ear and Throat Charity Hospital, resumed practice in Washington, D. C., April 19.——Dr. Claude Van Bibber, who has been ill at St. Agnes Sanatorium, is convalescent and has left the city to recuperate.——Dr. G. B. Harrison has been elected resident surgeon of the Greenbrier General Hospital, Ronceverte, W. Va.——Dr. Rufus I. Cole has been elected director of the Rockefeller Institute, New York City.——Dr. Harry Friedenwald has been appointed consulting ophthalmologist; Dr. Frank D. Sanger, consulting laryngologist; Dr. Henry O. Reik, consulting otologist; and Dr. Arthur M. Shipley, consulting surgeon at the new Sydenham Hospital for Infectious Diseases.

MISSOURI

Addition to Hospital.—The work on the addition to St. John's Hospital, Joplin, will begin about May 1. The addition will cost between $30,000 and $35,000, and will increase the capacity of the institution to more than 100 beds.

Tuberculosis Camps to Be Established.—After a thorough examination of the State Penitentiary, Jefferson City, a committee of the State Board of Health has recommended the establishment of a convict tuberculosis camp on the state farm just east of the prison, where all prisoners afflicted with the disease will be quartered for treatment.

Personal.—Dr. Albert H. Cordier, Kansas City, left April 15 for Kodiak Island, Alaska, for a three months' bear hunt.——Dr. William F. Keir, St. Louis, started on a trip around the world April 12.——Drs. Frederick A. Patterson, St. Joseph, and Harlan P. Mills, Grant City, have been appointed assistant physicians of State Hospital No. 2, St. Joseph.——Drs. William Porter, St. Louis, and Edward W. Schauffler, Kansas City, have been appointed members of the board of managers of the State Tuberculosis Sanatorium, Mount Vernon.

NEW HAMPSHIRE

Personal.—Dr. Ezra Mitchell, Lancaster, has resigned as chairman of the board of trustees of the New Hampshire Tuberculosis Sanatorium.——Dr. John M. Gile, Hanover, president of the New Hampshire Medical Society, was the guest of honor at a banquet of the Portsmouth Medical Society April 6.

Resolutions Regarding Dr. Conner.—The faculty of Dartmouth Medical School has adopted resolutions of regret at the death of their distinguished colleague, Dr. Phineas S. Conner, Cincinnati, placing on record their appreciation of his high scholarship and commanding ability as a practitioner and teacher.

Hillsboro Physicians Elect.—At the fourth annual meeting of Hillsboro County Medical Association, held in Nashua April 6, the following officers were elected: President, Dr. Eugene Wason, Milford; vice-president, Dr. John H. Gleason, Manchester; secretary-treasurer, Dr. Ella B. Atherton, Nashua; auditor, Dr. James B. Pettengill, Amherst, and delegate to the state society, Dr. Frank E. Kittredge, Nashua.

NEW YORK

Isolation Hospital.—The Buffalo Municipal Contagious Hospital Commission has decided to accept from the German Roman Catholic Orphans' Asylum land for a site for a hospital for acute communicable diseases. The plot of land is 563 by 486 feet, is located on Dodge and Best streets, and will cost $50,000.

Reception to Dr. Hopkins.—In acknowledgment of forty years of service as a member of the board of censors of Erie County Medical Society, a reception was recently tendered Dr. Henry Reed Hopkins. His important activities in the many years of practice were reviewed as follows: "State Society," Dr. Charles G. Stockton: "Medical Education," Dr. William W. Potter; "Health Legislation," Dr. Edward Clark; "Midwifery Legislation," Dr. Peter W. Van Peyman; "Protection of the Profession," Dr. Delancey Rochester; and the "Profession at Large," Dr. William C. Phelps.

Bills Signed by the Governor.—Governor Hughes has signed the Boshart bill which defines the term adulterated cream in the state agricultural law as cream containing less than 18 per cent. of milk fat to which any substance whatsoever has been added. The governor has also signed the bill amending the public health law regarding the establishment of hospitals or camps for the treatment of pulmonary tuberculosis. The new law corresponds to the recommendation of the governor in his annual message and requires that any person, corporation or municipality proposing to establish such an institution shall file a petition with the state commissioner of public health.

Contingent Fees.—It is stated that the present bill before the legislature in regard to contingent fees will not reach the root of the matter, and it is suggested that there should be some plan by which a jury shall know whether it is dealing with a contingent fee case or not. There should be a requirement to the effect that every such contract be filed with the papers in the case. On the rendering of the verdict the judge should ascertain the exact costs and fix the amount due the attorney, which in no case should exceed 25 per cent. of the recovery. Such a measure would serve to take away the temptation that now confronts "ambulance chasers" to enter into arrangements by which they get as much as 50 per cent. of the recovery and the costs, leaving the victim but a small fraction of what the jury intended that he should have.

New York City

Public Lecture Postponed.—Owing to important government business, Dr. Harvey W. Wiley, chief of the Bureau of Chemistry, Washington, D. C., has been compelled to cancel his engagement to address the Academy of Medicine, April 29, on "Drugs in Foods."

Favors New Ambulance Bill.—At a meeting of the Hospital Saturday and Sunday Association, resolutions were adopted commending the bill before the legislature to redistrict New York City and to authorize a public board of ambulance service. The association offers its cooperation whereby the hospitals of the city can be connected by telephone with a central bureau where reports can be made daily as to the number of beds vacant for the public use.

Staff House of City Hospital Opened.—Many men and women, prominent in charity work, were present at the opening of the staff house of the City Hospital on Blackwell's Island. The new building is called Janeway Hall in honor of Dr. Edward G. Janeway, who has been connected with this hospital for many years. This building cost $75,000, and has accommodations for 25 physicians. When it is occupied there will be accommodation in the hospital for 100 additional patients.

Lectures on Sanitary Science.—The last four lectures on Sanitary Science and Public Health will be as follows: April 14, "Personal Hygiene and the Hygiene of Communities," by Dr. Luther Gulick, chairman of the Playground Extension Committee, Sage Foundation, New York; April 21, "The Prevention of Alcoholism and Insanity," by Dr. Frederick Peterson, professor of psychiatry in Columbia University; April 26, "Visiting Nursing and Its Influence on the Prevention of Disease," by Dr. Richard Clark Cabot of Harvard University; and April 28, "The Influence of Education on Public Health," by Homer Folks, secretary of the State Charities Aid Association.

Plan to Economize in the Hospitals.—At a meeting of the heads of 45 hospitals in Greater New York a plan was presented by Mr. W. V. S. Thorne, former purchasing agent for the Union Pacific and Southern Pacific railroads, by which supplies for hospitals will be purchased by the same methods that were used in purchasing for railroads. Such a bureau would save the time of the various hospital officials and would supply them with samples and specifications of the goods bought. The maintenance of this agency would cost $24,000 a year, and it is estimated that there would be a saving of $161,318 annually. Before the plan can be put into operation it will be necessary to have the approval of the directors and executive committees of the hospitals. Many heads of hospitals were present at this conference and a resolution was passed favoring the plan.

NORTH CAROLINA

Physician Convicted.—Dr. J. Thomas Wright, Winston-Salem, charged on three counts with violation of the provisions of the recently enacted state prohibition law by prescribing liquor, is said to have been found guilty, but judgment was withheld and the defendant released on bonds of $200.

Personal.—Dr. Ivey G. Riddick, Youngsville, has been elected physician of the state penitentiary, Raleigh.——Dr. R. H. Stancell, Margaretsville, has been elected chairman of the board of directors of the State Hospital for the Insane, Raleigh.——Dr. Albert M. Ballard, Asheville, has been awarded the annual medal of the American Humane Association for the most notable act of kindness to horses or dogs coming to the attention of the association in 1908.

State Board of Health Meeting.—The State Board of Health held a special session in Raleigh, March 30, to transact business growing out of the recent increased appropriation made by the last legislature. Under the new law, the secretary must reside at Raleigh and devote his entire time to the public health interests. Dr. Richard H. Lewis, Raleigh, secretary of the board since 1892, resigned to take effect June 30. Dr. J. Howell Way, Waynesville, was tendered the position, but declined, as he did not wish to retire from private practice and to reside at the state capital. Dr. Watson S. Rankin, professor of pathology in the Wake Forest Medical School, was then unanimously elected secretary and executive officer of the board. His salary was fixed at $3,000. Dr. C. A. Shore was continued in the position of director of the state board's laboratory of hygiene.

PENNSYLVANIA

Medical Board Bill Fails.—After coming in contact with legislative obstructions, almost from the day it was introduced, the Herbst-Shreve single board medical bill failed by the "dropped from the calendar" channel. Mr. Shreve moved for the dropping of the bill from the calendar on account, he said, of the most pronounced opposition.

Reciprocity for Pennsylvania Physicians.—The Thompson bill, increasing the standard of the medical profession in this state, passed the senate finally April 14. This bill was introduced in the house in case of the failure of the single examining board bill. It raises the standard to the same level as that of New York, Ohio and Maryland. This is done to permit reciprocity of licensure between these four states.

Personal.—Dr. Thomas S. Arbuthnot has been elected dean of the College of Medicine of the University of Pittsburg.——Dr. H. Ross Coover has been made a member of the board of health of Harrisburg, and Dr. John C. Hutton is said to be the nominee of the mayor for health officer.——The health board of Oil City was reorganized April 7, and Dr. Jacob P. Strayer was elected president.——Dr. Adam J. Riegel has been elected president of the Lebanon Board of Health.

Sanatorium Notes.—In order to accommodate the increasing number of patients at the White Pine Sanatorium, Mount Alto, it has been decided to erect 40 additional cottages which will give accommodation for 320 more patients, making the total capacity of the sanatorium exceed 1,000.——The health officer of Butler has served notice on the medical inspector to remove the tuberculosis dispensary from the center of the city the outskirts, alleging that it is a menace to public health. The new infirmary at White Pine Sanatorium has already 100 patients, and there are now 600 patients in the institution.——The Braddock Tuberculosis Dispensary was opened March 28 with a public reception. Dr. Finlay K. Whitfield is physician in charge.

Philadelphia

Bequests.—The will of the late Charles E. Ellis bequeathes $10,000 to the Presbyterian Hospital for the endowment of a private room.——The will of the late Frank W. Hoyt contains the following provisional bequests: Samaritan Hospital, $10,000; Children's Hospital, $5,000; and Free Hospital for Poor Consumptives, $5,000.

Personal.—Dr. W. E. Nicely resigned the chief residentship of the Methodist Hospital.——Dr. Randall C. Rosenberger has been elected professor of bacteriology and hygiene in Jefferson Medical College.——Dr. Charles E. G. Shannon has been elected visiting ophthalmologist to the Seybert Home for Poor Children.——Dr. Aller G. Ellis has been elected assistant professor of pathology in Jefferson Medical College.

Water Nearly Pure.—Director Stearns' weekly statement on the efficiency of the city's filtration plants as ascertained by bacteriologic examination of the water supplied by these plants, shows that 99.59 per cent. of all bacteria has been removed from the raw water. The raw water from the Schuylkill, before passing through the filter beds, contained 72,000 bacteria per c.c., while the filtered water contained but 50 bacteria per c.c. The raw water from the Delaware contained 1,100 bacteria per c.c., while the filtered water from the same source contained but 40 bacteria per c.c.

Alumni Elect Officers.—At the annual business meeting of the Alumni Association of the Medical Department of the University of Pennsylvania, April 14, the following officers were elected: President, Dr. Richard C. Norris; honorary vice-president, Provost Clarence C. Harrison; vice-presidents, Drs. George C. Stout, Louis H. Adler Jr., and Charles P. Franklin; recording secretary, Dr. William S. Wray; corresponding secretary, Dr. Benjamin F. Stahl; treasurer, Dr. Herbert B. Carpenter; and executive committee, Drs. George D. Morton, George P. Miller, William McKeage, and John J. Gilbride.

RHODE ISLAND

Optometry Bill Denounced.—The bill regulating the practice of optometry, now before the general assembly, was denounced at the regular quarterly meeting of the Rhode Island Medical Society, March 4, and the members of the legislature were urged to fight against its passage.

Hospital Staff Increased.—Four assistant surgeons have been added to the staff of the Rhode Island Hospital, Providence: Drs. George A. Matteson, George W. Gardner, Charles E. Hawkes and Henry J. Hoye. Drs. Joseph C. O'Connell, Albert A. Barrows and John B. Ferguson have been appointed surgeons to the out-patient department of the institution.

Society Meetings.—At the annual meeting of Pawtucket Medical Society, held March 18, the following officers were elected: President, Dr. Bernard L. Towle, Pawtucket; vice-president, Dr. Byron U. Richards, Pawtucket; secretary, Dr. Adolph R. V. Fenwick, Central Falls; treasurer, Dr. Michael A. Ford, Pawtucket; councilor, Dr. Augustine A. Mann, Central Falls; delegates to the State Medical Society, Drs. Charles A. Stearns, and William F. A. Gillian, Pawtucket, and member of the standing committee, Dr. John A. Remington, Central Falls.——Newport Medical Society, at its annual meeting, elected the following officers: President, Dr. S. Parker Cottrell; vice-presidents, Drs. William S. Sherman and Michael H. Sullivan; secretary, Dr. Mary E. Baldwin, and treasurer, Dr. Douglas P. A. Jacoby.——The following officers were elected at the annual meeting of the Westerly Physicians' Association: President, Dr. John L. May; vice-president, Dr. Harold D. Kenyon; secretary, Dr. William A. Hillard; treasurer, Dr. C. Grant Savage, and censors, Drs. Edwin R. Lewis, J. Howard Morgan and Samuel C. Webster.——Washington County Medical Society, at its annual meeting held in Westerly, January 14, elected the following officers: Dr. Michael H. Scanlon, Westerly, president; Drs. Frank C. Pagan, Westerly, and Edward E. Kenyon, Usquepaugh, vice-presidents; and Dr. J. Howard Morgan, Westerly, secretary-treasurer.

GENERAL NEWS AND COMMENTS

The Carroll Fund.—The following contributions to the Carroll fund have been received and have not yet been acknowledged in The Journal:

Previously reported	$2,808.95
Dr. D. C. Strong, San Bernardino, Cal	5.00
Rockland County Medical Society, Nannet, N. Y	34.00
Dr. R. E. Bering, Tulare, Cal	1.25
Dr. Jno. B. Rosson, Tulare, Cal	1.25
Dr. A. M. Field, Tulare, Cal	1.25
Dr. T. D. Blodget, Tulare, Cal	1.25
Dr. S. C. Plummer, Chicago	5.00
Dr. W. H. Axtell, Bellingham, Wash	1.00
Dr. W. A. Long, Lewiston, Mont	5.00
Dr. A. W. Sherman, Burlington, Iowa	1.00
Dr. R. J. Fly, San Diego, Cal	1.50
A Physician of Jacksonville, Ill	2.00
Dr. Randolph Winslow, Baltimore	5.00
Dr. Wm. Treacy, Helena, Mont	5.00
Dr. Harold J. Rothschild, St. Paul, Minn	1.00
Dr. Charles L. Minor, Asheville, N. C	10.00
Dr. W. H. Roberts, Pasadena, Cal	5.00
Dr. Vincent Bonelli, Vicksburg, Miss	1.00
Dr. M. H. Bell, Vicksburg, Miss	1.00
Dr. B. B. Mactin, Vicksburg, Miss	1.00
Dr. H. F. Sprales, Vicksburg, Miss	1.00
Dr. Jos. Waldaeur, Vicksburg, Miss	1.00
Dr. Sylvan Myers, Vicksburg, Miss	1.00
Dr. Victor E. Bonelli, Vicksburg, Miss	1.00
Dr. E. F. Howard, Vicksburg, Miss	1.00
Dr. R. A. Quin, Vicksburg, Miss	2.00
Dr. H. B. Wilson, Vicksburg, Miss	1.00
Dr G. Y. Hicks, Vicksburg, Miss	1.00
Dr. H. H. Haralson, Vicksburg, Miss	1.00
Dr. S. W. Johnston, Vicksburg, Miss	1.00
Dr J. A. K. Birchett, Vicksburg, Miss	1.00
Dr. Wm. L. Holt, Paso Robles, Cal	1.00
Dr. D. E. Kisecker, Caldwell, Kan	1.00
Dr. James W. Gray, Clarksdale, Miss	5.00
Dr. A. T. Blachly, Lamedeer, Mont	2.00
Academy of Medicine of Cincinnati	100.00
Anonymous, New York City	10.00
Dr. J. R. Fabricius, New York City	5.00
Dr. J. Elvin Courtney, Denver	5.00
Dr. J. J. Moyer, Mayfield, Cal	1.00
Dr. John W. Ross, Palm Springs, Cal	10.00
Dr Clifford U. Collins, Peoria, Ill	5.00
Tippecanoe County Medical Society, Lafayette, Ind	15.00
Dr. Joel E. Goldthwait, Boston	5.00
Total	$3,073.95

$4,500 is still needed to raise the mortgage on the Carroll property.

Study and Prevention of Tuberculosis.—The preliminary program for the fifth annual meeting of the National Association for the Study and Prevention of Tuberculosis, which meets in Washington May 13 to 15, shows the comprehensiveness of the discussions at the meeting. In the advisory council, Dr. Victor C. Vaughan, Ann Arbor, is to read a paper on "Tuberculosis Legislation, State and Municipal." In the Sociological Section, Mr. Homer Folks, New York City, will take up the matter of "Recent Tuberculosis Campaigns and Their Results." In the Clinical and Climatologic Section, of which Mr. Lawrason Brown, Saranac Lake, N. Y., is chairman, a general discussion is to be held on the "Methods of Increasing the Efficiency of the Sanatorium," under the following heads: "Economic and Efficient Construction," "Improved Organization and Management," "Selection of Patients," "Economic and Scientific Dietary," and the "Work for Patients as an Economic, Immediate and Therapeutic Factor." On the second day, Dr. William Welch will deliver an address on "The Selection of a Library for the Study of Tuberculosis;" Dr. Joseph Walsh, Philadelphia, will speak on the "Diagnosis of Intestinal Tuberculosis," and Dr. William C. White, Pittsburg, on "New Method of Estimating the Beginning Dose of Tuberculin." In the Pathologic and Bacteriologic Section, of which Dr. Alfred S. Warthin, Ann Arbor, is chairman, the topics for consideration are "The Hematologic Studies in Tuberculosis"; "The Study of the Heart in One Hundred Patients Dying from Advanced Tuberculosis"; "What May be Looked for in the Lungs in Chronic Cases of Pulmonary Tuberculosis"; "The Infection of Man by the Avian Type of Tuberculosis"; "The Tuberculo-opsonic Test in the Diagnosis of Pulmonary Tuberculosis," and "The Amount of Lung Tissue Involved in the Test for Pulmonary Tuberculosis." In the Surgical Section, of which Dr. Rudolph Matas, New Orleans, is chairman, demonstrations of gross microscopic lesions in tuberculosis of bones and joints will be made with the aid of lantern slides, mobilization of tuberculosis joints with animal membrane will be described, and a paper will be read on "Anesthesia in Tuberculosis." The chief papers of the Section of Tuberculosis in Children, of which Dr. John H. Lowman, Cleveland, is chairman, will be on the "Diagnosis of Tuberculosis in Young Children," "Study of Symptomatology of Tuberculosis in Young Children," and "Treatment of Surgical Tuberculosis."

CANADA

Anti-Spitting Law Enforced.—Recently in Montreal, fourteen young men were fined, and eight were given an option of a fine of $3 and costs or thirty days in jail for violation of the anti-expectoration ordinance.

Hospitals in Ontario.—The thirty-ninth annual report of the Hospitals of Ontario for the year ended Sept. 30, 1908, shows that there are in the province 69 hospitals, 34 refuges, 30 orphanages, 3 homes for incurables, 2 convalescent homes and Magdalene asylums, and 28 county homes of refuge under governmental inspection.

Personal.—Dr. George R. McDonough, Toronto, has returned after a winter spent in South America.——Dr. A. E. Garrow, Toronto, convalescent from a long illness, has gone to Bermuda.——Dr. Margaret S. Wallace, Toronto, has been appointed professor of medicine in the College of Medicine for Women, North India.——Dr. John M. Piper, Toronto, is taking a trip to the Mediterranean.

Registration Bill for New Brunswick.—The College of Physicians and Surgeons, New Brunswick, has a bill before the provincial legislature, which provides that all registered practitioners shall constitute the New Brunswick Medical Society and that the council shall be composed of 9 members elected by the society, three each year for a term of three years. Names can be removed from the register for cause by the judge of the supreme court of the Province only.

Society Meetings.—The Association of Medical Officers of the Militia of Canada held its annual meeting at Ottawa February 25 and 26, the president, Col. George S. Ryerson, M.R.O., Toronto, in the chair. The following officers were elected: President, Lieutenant-Colonel Hubert S. Birkett, Montreal; vice-presidents, Lieutenant-Colonels G. S. Rennie, Murray, MacLaren, Blanchard and Jenkins, Majors Rankin, M. P. Kilborn, A. T. Shillington, E. R. Brown and E. A. Lebell, and Captains Williams and McTavish and Lieutenant S. W. Hewitson, and Secretary-Treasurer, Captain T. H. Leggett, Ottawa. The next annual meeting is to be held at Ottawa Feb. 24 and 25, 1910.——The Regina (Sask.) Clinical Society was organized April 3, and the following officers were elected: President, Dr. John M. Shaw; vice-president, Dr. H. M. Stevens; secretary, Dr. Harry Morell, and treasurer, Dr. A. E. Rothwell.——The Canadian Branch of the International Congress on School Hygiene was organized in Toronto during the meeting of the Ontario Teachers' Association last week. Sir James Grant, M.D., Ottawa, was elected president, and Dr. Helen MacMurchy, Toronto, secretary.——The third annual meeting of the Canadian Hospital Association was held in Toronto during the week ended April 17, under the presidency of Dr. W. J. Dobbie, Weston Sanatorium, Ont. The following officers were elected: President, Dr. Henry E. Webster, Royal Victoria Hospital, Montreal, and secretary, Dr. John N. E. Brown, Toronto General Hospital.

FOREIGN

The Catastrophe in Southern Italy.—The *Policlinico* of Rome adds the names of five more physicians to the list it has already published of the medical victims of the disaster. This last group were all army medical officers. Professor Gabbi has prepared a question blank with 29 questions in regard to the nervous disturbances observed after the earthquake, and is distributing these blanks hoping to obtain the elements for an original study which may throw new light on an important branch of medicine. The *Policlinico* has received subscriptions for aid of the physicians suffering from the effects of the earthquake; the amount is now nearly $500, and it reports nearly $2,000 received by the national medical association and distributed in amounts of $10 up to $40 to physicians or widows of physicians.

Sanfelice's Serotherapy of Cancer.—THE JOURNAL has mentioned from time to time the research of Professor Sanfelice of Messina on the saccharomycetes found in cancers, one species having proved capable of inducing in animals tumors closely resembling cancer in man. He has been at work for fifteen years on research in this line and has succeeded in isolating a toxin from this special saccharomyces which has the same effect on animals as inoculation of the germ itself, that is, causing apparently malignant tumor growth. He has further succeeded in obtaining a curative serum from animals immunized against this toxin, and this serum has shown marked curative action when animals with the experimental tumors were injected with it. He had just begun to apply this serum treatment in the clinic when the earthquake at Messina destroyed his laboratory. He was in northern Italy at the time trying to organize a national cancer research committee and central cancer institute.

Recent Deaths in the Profession Abroad.—Most deaths of prominent men abroad are mentioned in the letters from our foreign correspondents. Among those not mentioned elsewhere are: P. I. Diakanow, professor of surgery at Moscow and editor of the Russian surgical journal *Khirurgia*.——J. G. Metzger, of Paris, the massage specialist, who was a Hollander, originally a teacher of gymnastics, but who studied medicine and devoted himself to developing and practicing massage, first at Amsterdam, then at Wiesbaden. He finally settled in Paris where his success was a potent factor in popularizing massage.——K. Seggel, the ophthalmologist, of Munich.——A. Boursier, professor of gynecology at Bordeaux.——B. Vedeler, a prominent gynecologist at Christiania.——Dr. Paulun, president of the German medical school at Shanghai.——H. Brat, of Berlin, a well-known writer on occupational affections and hygiene.—U. Mosso, professor of materia medica at Genoa.——Dr. Motet, of Paris, author of numerous works on the medicolegal aspects of insanity and on hygiene, secretary of the *Académie de Médecine* from 1902 to 1908.

LONDON LETTER

(From Our Regular Correspondent)

LONDON, April 3, 1909.

British Medical Colleges for China

A movement has been started for the foundation of medical colleges in China under Christian auspices. It is thought that with the awakening of China to western civilization the time is opportune for furthering the propagation of Christianity and that some attempt should be made to educate the Chinese on a Christian basis and not allow their education to fall entirely into the hands of the Japanese who would put it on an agnostic basis. A meeting has been held at the Mansion House which was attended by Sir Robert Hart, late director of the Chinese customs, the American ambassador and other important personages, and a resolution was adopted calling for the provision of at least $500,000 for the purpose. The following scheme has been elaborated: 1. The establishment in the four principal cities of China of colleges for the training of Chinese students in western medicine, uniting the Christian churches working in China without sacrificing their various denominational principles. 2. The provision in as many centers as possible of normal training for Chinese school teachers and pastors on the same basis of unity as the medical colleges. 3. The publication in Chinese of the best western literature suitable for medical, normal training, and theological colleges to assist the Christian literature and tract societies at work.

Scalded by Water Used to Check Postpartum Hemorrhage

The proverbial ingratitude of patients is illustrated by the following case in which a woman brought an action against her physicians for doing a thing which probably saved her life. In the Aberdeen sheriff court Drs. J. A. Mearns and W. J. Bryce were each sued for $625 damages for alleged negligence in treating her during her confinement. She was scalded by the injection of hot water used to check postpartum hemorrhage. The sheriff in giving judgment remarked that it was a most painful case to decide in consequence of the mutual aspersions of the parties. On the one hand, there was no ground for accusing the plaintiff of shamming or malingering. Yet he could hardly understand how she suffered so severely from the application of water not hot enough to scald the hands of the physicians. In the absence of any proof of negligence, he must regard the scald as the result of accident, whether due to abnormal sensitiveness of the skin, to the midwife allowing the sheet saturated with hot water to remain in contact with the skin, or to some unascertained circumstance. Even in hospitals where the patients had the advantage of the highest skill and the most scientific appliances blisters had resulted from the use of hot water in the treatment of hemorrhage. He sympathized with the plaintiff, but he doubted if she would have brought the action if she had known that the physicians probably saved her life when she was under chloroform by promptly applying the only available remedy. If desperate cases called for desperate remedies, a physician might be pardoned for taking the risk of the water being too hot for the patient's skin instead of allowing her to bleed to death. He therefore gave judgment for the defendants.

PARIS LETTER

(From Our Regular Correspondent)

PARIS, April 8, 1909.

The Number of Medical Students in Paris

The council of the University of Paris has forwarded to the minister of public instruction its report on the situation and the work of the different faculties, as well as of the superior school of pharmacy, for the school year, 1907-1908. The author of the report, Dr. Pouchet, professor at the Faculty of Medicine, has drawn up a statement of the number of students registered at each faculty. In the Faculty of Medicine this number has risen to 3,535, exceeding the preceding year by 334. This total comprises 3,330 candidates for the M.D. degree (an increase of 293 over the preceding year); 4 for that of *officier de santé* (a decrease of 2 on the preceding year); 32 candidates as midwives of the first class (about the same as the figure of the preceding year); 48 as midwives of the second class (an increase of 7 over the preceding year), and 121 surgeon-dentist students (an increase of 6 over the preceding year).

The number of medical students of foreign nationality is markedly diminished (311 in place of 431). This diminution occurs largely in the Russian students (110 in place of 132). On the other hand the number of foreign women students is greatly increased (207 in place of 168), while that of French women students has increased from 78 to 94.

At the school of pharmacy, the number of students registered was 1,001, the women students numbering only 12, in place of 23.

The Protection of Infants of Tender Age

The minister of the interior has addressed to the President of the Republic a report on the carrying out of the Roussel law, relative to the protection of infants of tender age, and particularly of nurslings. This law places under surveillance of the public authority, with a view to the protection of its life and health, every infant under two years of age which, for pay, is put out to nurse, for weaning, or for custody, away from the home of its parents. The report just published covers the year of 1905, and gives some interesting information concerning the mode of rearing children.

Of 171,132 infants under protection during 1905 the mode of bringing up is precisely stated in only 159.643 cases, as follows: Nursed at the breast, 47,553, or 29.8 per cent.; artificial feeding, 99.040, or 62 per cent.; mixed feeding, 3.204, or 2.1 per cent.; infants weaned, 9,846, or 6.1 per cent. In 1903, out of 177,488 infants protected, 57,394, or 32.4 per cent., were nursed at the breast; 104,261, or 58.8 per cent., had artificial feeding; 15,733, or 8.8 per cent. were on mixed feeding or weaning. These figures show that the breast nursing of infants placed out to nurse tends to fall. This is particularly true for the northern part of France, where bottle feeding prevails; while in the southern part, breast nursing predominates.

A Hospital for the Tuberculous

The city of Paris is about to construct a hospital exclusively for the tuberculous of both sexes, to contain 1,200 beds. This will render it possible to give tuberculous patients treatment more appropriate to their condition, and also to relieve certain hospitals in which the tuberculous now occupy a large number of beds and are a continual menace of contagion for the other patie

Prizes for Hospital Merit

M. Leon Grunbaum has remitted to M. Mesureur, director of public assistance, a sum of 3,800 francs ($760) for the purpose of distributing six prizes of 500 francs ($100) each, and four gold medals of the value of 200 francs ($40) each to the nurses of the Cochin and Lariboisière hospitals. In each of these hospitals the jury of award will consist of the director, with the chief physicians of the respective services. M. Grunbaum hopes that these prizes will encourage those nurses who have shown excellent qualities of heart rather than professional technical aptitude. If this experiment succeeds—and it can hardly fail to succeed, for the candidates are already very numerous in the two hospitals named—M. Grunbaum intends to establish a definite foundation for the award of these prizes of "hospital merit."

Centenary of the Operation of Ovariotomy

Dr. Pozzi, professor of clinical gynecology at the Faculty of Medicine at Paris, has been appointed by the French government to represent the University of Paris at the centenary of the operation of ovariotomy in the United States.

Anti-Alcohol Instruction

The minister of public instruction, in a circular, has called the attention of the academic rectors to the fact that the decree of March 9, 1897, ordered the introduction into the educational syllabuses of definite instruction on the dangers of alcoholism. Although the teachers were invited to organize meetings to denounce the scourge that ravages the land, the minister regretfully announces that the results are hardly or not at all perceptible. It seems essential that the teaching faculty in all its grades should redouble its energy against alcohol and absinthe. The minister, moreover, calls on the rectors to favor the creation or extension of pupils' temperance societies in the secondary teaching establishments as well as in the primary schools. The ministerial circular points out that other countries have set a salutary example in this respect; thus, in Belgium, the propaganda in the schools, both by means of anti-alcohol teaching and by the action of temperance societies, has had the effect of reducing the consumption of alcohol *per capita* from 10.22 liters in 1891, to 8.45 liters in 1902, and 5.78 liters in 1905.

Reorganization of the Morgue

In accord with the ministries of justice and of public instruction, and conformably to a recent decision of the general council, the prefect of the Department of the Seine has appointed a commission to draw up a complete scheme for reorganization for the morgue. This commission contains among other members Professor Landouzy, dean of the Faculty of Medicine of Paris, and Dr. Thoinot, medical inspector of the morgue.

Epidemic Meningitis

Because of the disquieting recrudescence of epidemics of typhoid and cerebrospinal meningitis appearing in different localities, M. Clemenceau, minister of the interior, has addressed to all the prefects a circular directing them to issue an urgent summons to the permanent council of hygiene of their department, to elaborate prophylactic measures against these epidemics. In Paris the council of hygiene of the Department of the Seine has brought its decisions to the knowledge of the public by means of placards. It has decided, among other measures, to address to all physicians of Paris and the Department of the Seine a circular containing instructions necessary for the diagnosis of the diseases and the measures to be adopted with the patient. This circular will also enumerate all the facilities placed at the disposition of physicians by the sanitary service of the prefecture of police and the prefecture of the Seine.

BERLIN LETTER

(From Our Regular Correspondent)

BERLIN, March 31, 1909.

New Examination for Dentists

A few days ago a new examination for dentists was provided by the federal council. This gives the right of conferring license on dentists to the authorities of each state of the empire which has one or more national universities. The production of a certificate of graduation is a condition for entrance on the study. The time spent in military duty can not be reckoned in the prescribed period of study. The new regulations take effect on October 1 of this year.

Serum Treatment of Typhoid

Professor Hoffmann has recently reported the result of an investigation of the serum for typhoid recommended by two young Berlin investigators, Bergell and F. Meyer. He comes to the conclusion that the application of this antitoxic typhoid serum to man is not justified at present. The presence in the serum of agglutinins, precipitins and substances favoring phagocytosis was confirmed, but it was shown that there is not enough antitoxin to neutralize the toxin set free by the death of the bacteria.

Hygiene of Barber Shops

The municipal authorities of Stuttgart have passed an ordinance for securing cleanliness in barber shops. The shops must be provided with a seamless impermeable floor covering. Combs and brushes must be cleansed at least once a day in warm solution of soda. Every customer must be furnished with a clean towel, etc. Violations of these rules are punished by a fine up to $36.00 (150 marks) or by imprisonment.

Tips for Securing Patients

We have described the method of the Russian Institute which secures Russian patients to prominent specialists for a fee. In connection with a trial of two Berlin physicians for some alleged insult this custom was made the subject of a judicial inquiry, and it came out that a number of Berlin professors of the first rank were in the habit of paying fees to the proprietors of this institution as well as to other agents for bringing them patients. The names of all those who were guilty of such a practice were not disclosed in the trial, but their exposure is only a matter of time for the tribunal of honor as well as the Berlin medical faculty will investigate the matter thoroughly. The disclosures have already furnished one victim, and this person seems to be the least guilty. Among those named in the trial is the prominent clinician Senator. As he is president of the Berlin Medical Society this body has engaged in the discussion of the question of his culpability. Senator explained that he had paid the money not as a tip but as a fee to interpreters, but since the matter is likely to become the subject of judicial investigation he has resigned his office as president. The medical society is satisfied with this, for it must be admitted that the man occupying an office which has been held by such men as v. Graefe, Langenbeck, Virchow and v. Bergmann should be above reproach. The majority of Berlin physicians believe that Prof. Senator is a man of entirely honorable character who has not knowingly transgressed the ethics of the profession, and it is hoped that he will come out of the judicial investigation spotless. Under these conditions it may well be expected that he will be reinstated in his office at the next election of president of the society, and this rehabilitation is very desirable for a distinguished scientist who with gray hairs has reached his seventy-fifth year in honor. The situation is not as good with the majority of the other professors named in this affair. The result of the exposure of their practices is likely to affect them for a long time. Some of them have published explanations which indicate that the revelations in the court were incorrect. They claim that they are not guilty of the offense of which they are accused. A definite decision for or against them can not be given by outsiders. As an appeal from the decision of the court has been taken by both of the litigants, a new trial will occur which it is hoped will clear up the matter. Moreover, the tribunal of honor, as well as the faculty of the Berlin university will take further notice of these charges.

The Cause of Trachoma

About two years ago Prof. Greeff, director of the university eye clinic of this city, published an account of his discovery of bodies in the cells and secretion of the conjunctiva in cases of trachoma which in his opinion were the existing cause of this disease. Greeff has continued his investigations and has reached the result according to an article in the last number of the *Deutsche medizinische Wochenschrift* that these bodies are really the cause of trachoma. They are round bodies considerably smaller than the smallest cocci. They stain intensely violet or reddish with the Giemsa stain, less strongly with anilin dyes and do not stain with Gram's stain. Commonly they lie side by side as diplococci. These bodies are hard to recognize and it is necessary to examine fresh and untreated cases. After a few days of treatment with solid copper sulphate the bodies are no longer demonstrable in smear preparations. The detailed methods of staining and drawings of these bodies are to be found in the original article to which those interested are referred.

VIENNA LETTER

(From Our Regular Correspondent)

Vienna, April 3, 1909.

Mortality in Vienna

The latest report of the metropolitan board of health for 1908 contains a few interesting figures in regard to mortality in the city of Vienna. The average death rate was 17.57 per thousand, lower than any preceding year. Altogether 35.511 persons died last year, 18.334 men and 17.177 women. Of these deaths, 8.320 (24 per cent.) were of infants under 12 months, and 2.803 of children between 2 and 5 years, so that 11.123, or fully 31 per cent. of the total, occurred in the first five years of life. Among children the causes were chiefly measles, scarlet fever and whooping cough; among those over 65 years, carcinoma and marasmus; while pneumonia and gastrointestinal diseases were responsible for many deaths among the middle-aged. A decided decrease was noticed in deaths due to cerebral disease and tuberculosis, although the last-named was still responsible for the largest number of deaths (5.564, or 15 per cent.). At any rate, the decrease in deaths from tuberculosis (5,564, against 5,840) is too marked to be accidental.

To Protect from Dangers of Lye

The ministry has just issued an ordinance regulating the sale of the liquid known as household caustic potash. An investigation concluded by a special committee of the Vienna Medical Society has demonstrated the amount of harm done by the careless handling of this liquid, and its suggestions were adopted by the ministry. Thus, in future the liquid must not be sold otherwise than in special bottles distinctly labeled "poison," nor in small quantities in stronger solution than 1.25 per cent. An unpleasant smell must be imparted to it by the addition of a few drops of ammonia. Children must not be sent for the bottles. Accidents and attempts at suicide with caustic potash solution have been so numerous during the last few years as to attract public attention.

Restrict Use of Phosphorus in Matches

Another important measure now under consideration is a bill regulating the manufacture of matches, as the use of white or yellow phosphorus in making matches is not illegal here. The investigations of the Vienna Medical Society have proved, not only that the present regulations do not prevent that dreaded disease, phosphorus necrosis, but that no means short of prohibition of the use of phosphorus can be relied on to stop it. Therefore the government, which lately has turned a somewhat friendlier ear toward the wishes of sanitarians and public health officers, has brought in a bill making the use of phosphorus in match factories a serious offense after July 1, 1912. Meanwhile, strict regulations to lessen the risk of employés are to be enforced. Thus, no one may work longer than four weeks at a time in one branch of the manufacturing process, which consists of three parts. Special ventilation plants and sufficient lavatory accommodations, including a supply of soap and hot water, as well as special working gowns must be provided by the employer; and a control system to ensure personal cleanliness, and especially to prevent the employés from eating with unwashed hands, is made obligatory. A prize has been offered for the invention of a method of using phosphorus without harm to the health of the workers, and without making the cost of the product prohibitive. Unless such a method is invented before July 1, 1911, the law—for there is no doubt that the bill will become law—will be put in force one year later.

Wet-Nurses and Syphilis

A movement, arising out of a paper by Drs. Sperk and Pollak, has been initiated in medical circles for taking the business of providing healthy wet-nurses out of the hands of professional agents and turning it over to a municipal or state institution, where every nurse, together with her baby, could be examined before being permitted to suckle another child. A series of cases seen recently at one of our largest children's ambulatory clinics shows the imminence of this danger. In one case a wet-nurse infected a whole family. Her own baby showed symptoms of hereditary syphilis; yet the physician of the agency which negotiated the supply of wet-nurses had made no effort to have the woman struck off the list. The suggestion has received unanimous assent, and a petition, signed by the leading physicians of the city and supported by the senate of the university, will be presented to the board of health, asking for the complete suppression or reliable regulation of such agencies.

Pharmacology

PROSECUTIONS UNDER FOOD AND DRUGS ACT

The Value and Necessity of Pure Food Laws and What They Are Accomplishing

As a broad generalization, the command, "Thou shalt not lie," has been accepted as a good moral precept for a number of centuries; when applied specifically, however, more or less specious arguments have, in all ages, been advanced against too slavish an adherence to its tenets. This point has been somewhat emphasized since Jan. 1, 1907, when the national Food and Drugs Act went into effect and so modified the earlier commandment as to read in effect "Thou shalt not lie on the label." As a general proposition, that requirement of the law would seem incapable of working hardship to any one —yet apparently it does.

"HARPER'S BRAIN FOOD"

For instance, Robert N. Harper, of Washington, D. C., manufactured a headache nostrum to which he gave the euphonious name "Harper's Cuforhedake Brane-Fude." This was sold with the statements that it contained no "poisonous ingredients of any kind" and that it was a "harmless relief." The Bureau of Chemistry of the Department of Agriculture analyzed this "harmless" and "non-poisonous" preparation and reported that it consisted of the following ingredients:

Alcohol (per cent. by volume)	24.2
Acetanilid (grains per ounce)	15.0
Caffein (per cent.)	1.5
Antipyrin (per cent.)	1.0

Potassium, sodium and bromids also present.

Inasmuch as this nostrum was shown to be neither "harmless," "non-poisonous" nor a "brain food," Mr. Harper was found guilty of misbranding and sentenced to pay a fine of $700. Motions were made in arrest of judgment and also for a new trial, both of which were overruled. Then notice was given of appeal to the Court of Appeals. Subsequently, however, Mr. Harper withdrew the appeal and paid the fine.

HANCOCK'S LIQUID SULPHUR

The Hancock Liquid Sulphur Company of Baltimore marketed a product of the same name for which they made numerous claims. The statements on the label represented that this preparation contained some unknown, peculiar liquid sulphur and that it was "Nature's Greatest Germicide" as well as "the Great Cure for . . . Diphtheria . . . " and numerous other conditions such as "itch," "granulated eyelids" and "pimples." The Bureau of Chemistry analyzed a sample of this product and reported that it "consisted of an aqueous solution of commercial calcium sulphid." R. N. Menefee, manager of the Hancock Liquid Sulphur Co., was therefore prosecuted by the government for shipping a misbranded product. The court decided that a solution of calcium sulphid was not "Nature's Greatest Germicide," neither was it a "Great Cure for . . . Diphtheria . . . " and that the statements on the label "were false, misleading and deceptive." The manager of the company entered a plea of guilty and the court imposed on him a fine of $100.

"CONCENTRATED OIL OF PINE COMPOUND"

A preparation labeled "Concentrated Oil of Pine Compound," manufactured by the Globe Pharmaceutical Co., Dayton, Ohio, was subjected to analysis by the Bureau of Chemistry. The result obtained showed, according to the report, that the sample examined "consisted of a mixture of fixed oil, a resinous substance and a small amount of volatile oil . . . resembling turpentine." This analysis made it evident that the product was misbranded as "the composition did not in any way warrant the use of the name 'Concentrated Oil of Pine Compound,' and the statement that it was such was false, misleading and deceptive." The Globe Pharmaceutical Co., in the persons of Wm. E. Pilkinton and A. P. Foose, pleaded guilty to the charge and paid the fine imposed and the costs of the prosecution.

"CASTOR OIL PILLS"

Robert Blackburn, doing business under the name of the Victory Remedy Company, Dayton, Ohio, was prosecuted by the United States for shipping a misbranded drug product from Ohio to Michigan. The preparation in question was labeled "Blackburn's Cascara, Wild Lemon, Castor Oil Pills, Compound," and samples were subjected to analysis at the government laboratory. According to the report the "pills" contained "calcium sulphid, capsicum, atropin (introduced probably, in the form of belladonna extract)." As to castor oil, if they contained any, it was at most a trace. As the cathartic, curative and therapeutic effects of castor oil were naturally "almost wholly absent," the use of the name "castor oil pills" was unjustified and constituted misbranding. Blackburn pleaded guilty and paid the fine and costs of prosecution.

"SARTOIN SKIN FOOD"

The Globe Pharmaceutical Company, which has already been referred to in connection with the "Concentrated Oil of Pine Compound," also marketed what was known as "Sartoin Skin Food." The modest claim was made for this preparation that it "is probably the most effective remedy known to science for sunburn, rashes and all skin blemishes" and that it was equally effective in "creating the normal growth of all parts not fully developed and shrunken." The Bureau of Chemistry analyzed a sample of this "skin food" and found "the most effective remedy known to science" to consist essentially of "epsom salts colored with a pink dye." The government decided that to claim epsom salts to be a "food" is "false, misleading and deceptive"; as Wm. E. Pilkinton and A. P. Foose (the Globe Pharmaceutical Co.) failed to "show any fault or error in the findings of the analyst," but pleaded guilty, they were each fined $10.

It must not be thought that these five prosecutions represent all that has been accomplished in bringing adulterators or misbranders to justice under the provisions of the Food and Drugs Act; up to April 12, 1909, no fewer than fifty judgments have been rendered against firms or individuals that have violated the law. When it is borne in mind that advantage of every legal technicality is likely to be taken by those who make a business of putting on the market adulterated food-stuffs or misbranded "patent medicines," the success of the Board of Food and Drug Inspection is highly to be commended.

Apparent Incompatibility in a Prescription

To the Editor:—I find the following prescription in Keen's "Surgery" under Specific Urethritis

℞.	Zinci sulphatis	gr. xvi
	Plumbi acetatis	gr. xxx
	Glycer. of tannin,	
	Lloyd's hydrastis	āā, ʒiv
	Mucil. acaciæ	ʒiv
	Aquæ destillat., q. s. ad	℥vi

M. Sig.: Inject.

My druggist says this mixture is incompatible, the lead acetate and mucilage of acacia forming a lumpy precipitate, which could not be injected. As Horwitz recommends this prescription, I think there must be some way of preparing the same, so that it will not be lumpy.

C. L. E., California.

Answer.—In compounding the prescription several reactions occur which no doubt the prescriber wished to take place. Zinc sulphate and lead acetate interact to form insoluble lead sulphate and soluble zinc acetate. Any alkaloid hydrastin which is contained in Lloyd's hydrastis will react with tannin in the glycerite of tannin to form an insoluble hydrastin tannate; also, any lead that remains in the solution will combine with the tannic acid to form insoluble lead tannate. Soluble lead salts also react with acacia to form a precipitate which is liable to be coherent and gummy in character, and consists of the lead salt of arabic acid. Acacia consists chiefly of arabic acid in combination with calcium, potassium and magnesium, and when a solution of acacia is mixed with a solution of a lead salt, insoluble lead arabate is formed. The following procedure, however, will give a uniform mixture, which, even after standing several days, can still be shaken up into a uniform emulsion: Dissolve the zinc sulphate in water and to this add the lead acetate, also dissolved in water. The Lloyd's hydrastis is then added, followed by the glycerite of tannin, and finally the mucilage of acacia.

Correspondence

Refraction

To the Editor:—"Say nothing but good of the dead" is good advice; yet I feel that the article by the late Dr. St. John Roosa (The Journal, Feb 13, 1909, p. 543) should be criticized

I do not think that Dr. St. John Roosa was right when he said: "An eye with a moderate degree of hypermetropia without corneal astigmatism, other conditions being favorable, will do its work in a thorougaly satisfactory manner." I often have patients with moderate hypermetropia, without any corneal astigmatism, in whom the general health is good and who yet suffer from severe and intolerable headaches. I recently had as a patient a dental student who had one diopter of hypermetropia without any corneal astigmatism and who was in good health, but suffered from constant headaches that interfered with his work He was entirely relieved of his headaches by plus 0 75 spheres for each eye.

Nor can I endorse the statement that if glasses do not improve the vision . . . they are absolutely of no use" The patient whose case I just cited above had no improvement in vision with his glasses as his vision was good without glasses, and this is the case with most hypermetropes of moderate degree and without corneal astigmatism.

I do not believe that Donders said the last word on refraction; I think that a great deal is yet to be learned in regard to refraction

There are very few, if any, who will claim to get good results without mydriatics and with ophthalmometers which Dr Roosa recommended so highly In the case that I have just cited of the dental student, the refraction of the eye had been determined several times by some one who used an ophthalmometer and the patient was wearing weak compounds when he came to me with his severe headaches Reverting to the statement that "if glasses do not improve the vision . . . they are absolutely of no use," it may be said that just this idea is the source of trouble in the cases of many school children who suffer from hypermetropia They have good vision without glasses and, if they are examined by some one who is not a competent oculist, are dismissed with the statement that their eyes are all right.

Articles like that by Dr. Roosa have a bad influence on the general practitioner and have a tendency to encourage opticians and the traveling spectacle vender.

M. Morgan Cloud, Los Angeles, Calif.

Tuberculosis or Consumption?

To the Editor.—The following advertisement appeared lately in the daily papers under the official emblem of the International Congress for the Prevention of Tuberculosis:

> 'Join the fight against tuberculosis. The war is being led into the camp of the enemy by the *Metropolitan Magazine* 200,000 people are killed each year in the U S alone. and 3,000,000 are afflicted with the disease The April article is by Mr O F Lewis of the New York Charity Organization Other articles will follow by the leading specialists of the world"

I desire to call attention to the advisability of conservatism in this matter. To overdo it will cause a reaction in the public mind In 1902 we told the public that 100,000 people die every year from tuberculosis. In 1909, after seven years of hard fighting with all scientific achievements at our command, with all the vast sums expended, with all the aid of civilized governments cooperating with well-trained physicians and an intelligent public, it is now said that over 200,000 die every year of this disease in the U. S. alone. There can be only one deduction, and that is, that the claim that tuberculosis is a preventable disease is contrary to fact.

Progress in medical science now enables us to diagnose tuberculosis at a very early stage, so that its more frequent discovery makes it appear to be on the increase "Consumption," however, *i e*, the advanced stage of tuberculosis, when it has become a 'consuming" disease, is in fact, on the decrease, for many more patients are now cured before they get to the 'consumptive" stage.

We should not teach, therefore, that tuberculosis is synonymous with consumption, for it is not. This teaching is objectionable on the following grounds.

1. Tuberculosis in the incipient stage is curable, while the advanced stage called consumption is nearly always beyond the point of possible arrest

2. The belief in their identity has a depressing effect on patients in the early stage, from the sinister significance of the word consumption

3 The teaching that tuberculosis and consumption are identical and that tuberculosis is a curable disease, rouses false hopes of cure in every case to the ultimate detriment of scientific medicine

4 It exposes the public to the mercy of the charlatan who pronounces every case of cough tuberculosis; and it plays up to the fakers who advertise marvelous "cures of consumption"

5 Finally the fakers make capital out of incipient cases curable by any treatment, while the fate of the patients in the incurable cases is laid to the medical profession. If the public understood by consumption only the cases of consuming disease, fakers could be challenged to make good their claim

The term tuberculosis should be reserved for scientific use, that of consumption being retained for advanced cases, and these alone should be dealt with in statistics for the public use We should then be able to show a decrease in consumption instead of an increase in tuberculosis

L. W. Zwisohn, M.D., New York.

Miscellany

First Aid in Electric Accidents.—The *Scientific American*, March 20 1909, calls attention to the need of instruction of men engaged in handling electric circuits in the proper immediate treatment of persons injured by strong currents and in self protection A fallen live wire may be safely removed by a rope improvised from a twisted coat A person who has fallen across a live rail may be removed by pulling on his coat or by using a wooden pole A live wire may be cut by pliers provided with wooden handles boiled in paraffin Interesting experiments have shown that a fireman incurs practically no danger in directing fresh water from a hose against a live high-tension wire at a distance of 3½ feet, although salt water was not used and would doubtless be found a far better conductor of the current Chemical extinguishers were found very dangerous This fact should be more generally known, as passenger trains are usually equipped with chemical extinguishers and, in case of a wreck on an electrified line, serious consequences might result from playing an extinguisher on a charged wire

A Claim to Priority.—Dr W H Hutt of Philadelphia has issued a pamphlet 'The First Fifteen Years of the Antituberculosis Crusade, 1873 1888," in which he claims to have put into practice—1873 to 1888—the principle of seeking public aid and legislative assistance to carry out the outdoor and fresh air treatment of tuberculosis, combined with adequate feeding His efforts culminated, he says, in February, 1884—a year before the sanatorium at Saranac Lake was opened—in the establishment at Glen Mills, Delaware county, Pa, of the first public institution for the outdoor treatment of the tuberculous. This movement was aided by the Protestant Episcopal City Mission, and it is said received the support of the following well-known physicians: Drs. Rowland G. Curtin, W. Joseph Hearn, D. Hayes Agnew, James Tyson, William Pepper, S. W. Gross and William H. Pancoast. While, for various reasons, the movement had to be abandoned, Dr. Hutt claims its recognition among the seed that has brought forth the fruit of modern organized methods for the public treatment and prophylaxis of tuberculosis.

Thyroid Treatment of Lipomatosis.—P. Morsaline reports in the *Revista de la Sociedad Medica Argentina*, XVIII, p. 281, 1908, several cases of symmetrical lipomatosis.' One patient in particular was a middle-aged man with lipomatosis especially prominent in the neck. The symmetry of the lesions indicated trophic nervous disturbances and various signs of infantilism, etc., suggested that the thyroid gland had been functioning defectively. Morsaline cites a few cases from the literature in which lipomatous lesions coexisted with almost complete absence of the thyroid. Thyroid treatment is said to promote the growth of the skeleton, reduce elimination of lime and facilitate the consolidation of fractures in cases of defective thyroid functioning. In his case the thyroid had also suffered from the action of liquor. For all these reasons, after a course of strychnin, he ordered thyroid treatment, and the tumors in the neck, back and abdomen were a third smaller after three months of treatment, and considerably softer, while the patient's general health was much improved.

Queries and Minor Notes

Anonymous Communications will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed.

AFTER-EFFECTS OF VASECTOMY

To the Editor:—In The Journal, April 3, is an editorial in advocacy of vasectomy for confirmed criminals and defectives. Is it a fact beyond dispute that there have been no deleterious after-effects from this operation? Is the sexual appetite affected by it?

J. L.

Answer.—While vasectomy for the sterilization of those judicially declared unfit for citizenship is a recent practice, yet vasectomy for other purposes—the relief of prostatic and vesicular disease, and of recurrent epididymitis—has long been a standard surgical procedure; so has the excision of the tuberculous epididymis and vas. There is therefore a large surgical experience as to the effects of vasectomy on sexuality. This experience affirms that neither sexual desire nor sexual power is impaired by vasectomy. For example, Ochsner (A. J.) stated before the Chicago Medical Society, April 7, that men on whom he had performed vasectomy were sexually normal ten years later. Others have made similar observations and say that they have not seen impairment of sexuality follow the operation. The testis furnishes two products, spermatozoa and an internal secretion. Neither of these is arrested by occluding the seminal duct, for Posner years ago reported that by puncture of the testis he had withdrawn living spermatozoa ten to seventeen years after occlusion of the epididymis by gonorrheal invasion. Belfield of Chicago, on making an anastomosis of epididymis and vas for the cure of sterility, found spermatozoa present fourteen years after occlusion of the epididymis had occurred. That vasectomy itself is equally harmless to the spermatogenic function is shown in a case in which he reunited the vasa three years after they had been divided, the semen subsequently containing normal spermatozoa. Moreover, absence of the spermatogenic function of the testis does not include absence of sexual desire or power; this is amply proved by cases of retained testes, the subjects being sexually vigorous though the testes produce no spermatozoa. It is also shown by the sexual vigor of those whose spermatogenic function has been arrested by exposure of the testes to the *x*-ray. Evidently it is the internal, not the external (spermatic) secretion of the testis which confers and maintains sexuality; evidently the two functions are independent; and evidently neither is arrested by vasectomy. Sterilization of criminals by *x*-ray exposures has been proposed as a substitute for vasectomy; among the objections to this is the observation that such sterilization seems to be transient.

INTRAVENOUS MERCURIAL TREATMENT IN RHEUMATISM

To the Editor:—In The Journal, April 3, 1909, page 1151, reference is made to intravenous mercurial treatment in rheumatism. Can you give me a formula for use? What action would it be likely to have on the blood and economy if continued in a tuberculous patient, the dose being only 1 mg. or 3 mg. every three days?

G. W. Park.

Answer.—The drug used by Ortali in the article referred to was mercuric chlorid. It is usually given in 1 per cent. solution and the solvent should be an isotonic (normal) salt solution. An account of the technic of intravenous injections may be found in an article by G. P. Crume in The Journal, Dec. 19, 1908, p. 2155. We can not say what would be the effect of such injections if continued in a tuberculous patient. The dose proposed would probably be so small as to produce little if any effect.

BOOKS ON HYPNOTISM AND PSYCHOTHERAPY

To the Editor:—Please name some good books for the information of physicians in regard to psychotherapy.

R. M.

Answer.—A fairly full list of books on this and related subjects was given in The Journal, Feb. 29, 1908, p. 710. This was added to considerably, Feb. 13, 1909, p. 577, and further additions were made Feb. 20, 1909, p. 650.

The Public Service

Army Changes

Memorandum of changes of stations and duties of medical officers for the week ended April 17, 1909:

Raymond, T. U., major, granted leave of absence for 1 month.

Munson, E. L., major, granted leave of absence for 2 months 10 days, about June 5.

Woodson, R. S., major, ordered to Fort Hamilton, N. Y., for duty, instead of Fort Du Pont, Del.

Brown, H. L., capt., granted leave of absence for 6 days.

Hart, W. L., 1st lieut., ordered to accompany Company G, Engineers, to San Francisco, Cal., then to return to Washington Barracks, D. C.

Hopwood, L. L., Freeman, C. E., McIntyre, H. B., 1st lieuts., ordered to report at San Francisco for examination for promotion.

Love, A. G., Jones, H. W., Pinkston, O. W., Reasoner, M. A., Hanson, L. H., Schmitter, F., 1st lieuts., ordered to report at Washington, D. C., for examination for promotion.

Baily, H. H., capt., ordered to accompany Company F, Engineers, from Washington Barracks, D. C., to Vancouver Barracks, Wash., and then return to station, Fort Myer, Va.

Sparrenberger, F. H., M. R. C., granted an extension of 20 days to his leave of absence.

Kress, C. C., M. R. C., relieved from duty at Fort Bliss, Tex., in time to proceed to San Francisco and sail June 5 for the Philippine service.

McMillan, C. W., M. R. C., ordered to duty at target range near Ashland, Neb., during the target practice season.

Hughes, L. S., M. R. C., ordered from Fort McDowell, Cal., to temporary duty at the Department Rifle Range, Point Bonita, Cal.

Hewitt, J. M., M. R. C., ordered to duty with troops in the Yosemite National Park.

Navy Changes

Changes in the Medical Corps, U. S. Navy, for week ended April 17, 1909:

Reed, T. W., asst.-surgeon, orders of March 17 modified; detached from the *Colorado* and ordered to the Marine Recruiting Station, San Francisco, and to duty in attendance on officers and families not otherwise provided with medical service.

Connor, W. H., acting asst.-surgeon, ordered to duty at the Naval Hospital, Norfolk, Va.

Wilson, H. D., surgeon, ordered to additional duty in charge of the medical departments of the *Indiana, Kentucky* and *Illinois*.

Fiske, C. N., P. A. surgeon, ordered to special temporary duty in the bureau of medicine and surgery, Navy Department.

Bell, W. H., and Kennedy, R. M., surgeons, detached from the bureau of medicine and surgery, Navy Department, and ordered to instruction at the Naval Medical School, Washington, D. C.

Wentworth, A. R., surgeon, detached from the *Louisiana* and ordered to the Naval Academy.

Stokes, C. F., surgeon, detached from the Naval Academy and ordered to the Naval Medical School Hospital, Washington, D. C., for duty.

Curl, H. C., surgeon, detached from duty at the Naval Medical School Hospital, Washington, D. C., April 24, and ordered to duty at the Naval Hospital, Canacao, P. I., via the *Buffalo*.

Jones, E. L., asst.-surgeon, detached from the *Maryland* and ordered to the Naval Recruiting Station, Dallas, Tex.

Chambers, W., asst.-surgeon, detached from the Naval Recruiting Station, Dallas, Tex., and ordered to the *Maryland*.

Heiner, R. G., P. A. surgeon, detached from *Pennsylvania* and ordered to the *Albany*.

Biello, J. A., asst.-surgeon, detached from duty at the Naval Hospital, Mare Island, Cal., and ordered to the *Vicksburg* when commissioned.

Stibbens, F. H., asst.-surgeon, detached from *Albany* and ordered to *Pennsylvania*.

Public Health and Marine-Hospital Service

List of changes of stations and duties of commissioned and other officers of the Public Health and Marine-Hospital Service for the seven days ended April 14, 1909:

Irwin, Fairfax, surgeon, relieved from duty on the revenue cutter *Snohomish* and directed to report to the commanding officer of the revenue cutter *Rush* for duty.

Wertenbaker, C. P., surgeon, relieved as chairman of board of medical officers convened under bureau order of April 5, 1909.

Gardner, C. H., P. A. surgeon, granted 3 days' leave of absence from April 8, 1909.

Sprague, E. K., P. A. surgeon, granted 7 days' leave of absence from April 8, 1909.

Hobdy, William C., P. A. surgeon, on being relieved by P. A. surgeon Frederick E. Trotter, directed to proceed to Honolulu, T. H., and assume command.

King, Walter W., P. A. surgeon, relieved from duty at the Marine Hospital, San Francisco, and detailed for duty in the examination of arriving aliens at San Francisco.

Goldberger, Joseph, P. A. surgeon, directed to proceed to Richmond, Va., on special temporary duty.

Trotter, Frederick E., P. A. surgeon, on being relieved by P. A. Surgeon Walter W. King,, assume command of San Francisco Quarantine Station, Angel Island, Cal.

Ebersole, R. E., P. A. surgeon, granted 7 days' leave of absence from Feb. 27, 1909, under paragraph 191, Service Regulations.

Collins, G. L., P. A. surgeon, detailed as chairman of board of medical officers convened under bureau order of April 5, 1909.

Stiles, Charles Wardell, chief of division of zoology, hygienic laboratory, granted 1 day's leave of absence in March, 1909, under paragraph 211, Service Regulations.

Kastle, Joseph H., chief division of chemistry, hygienic laboratory, granted 2 days' leave of absence in March, 1909, under paragraph 211, Service Regulations.

Blanchard, J. F., acting asst.-surgeon, granted 3 days' leave of absence from April 3, 1909.

Onuf, B., acting asst.-surgeon, granted 7 days' extension of annual leave on account of sickness from March 29, 1909.

Tappan, J. W., acting asst.-surgeon, granted 5 days' extension of annual leave on account of sickness from March 11, 1909.

APPOINTMENT

Dr. Samuel C. Hotchkiss commissioned as asst.-surgeon in the Public Health and Marine-Hospital Service.

Health Reports

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended April 16, 1909.

SMALLPOX—UNITED STATES

Alabama: Antangua county, to April 5, 11 cases; Pottsville, Feb. 7-April 5, 3 cases; Montgomery, March 26-April 2, 1 death.

California: Los Angeles, March 20-27, 1 case; Sacramento, 1 case; San Francisco, 1 case.

District of Columbia: Washington, March 27-April 3, 1 case.

Georgia: Macon, March 28-April 4, 2 cases.

Illinois: Canton, Jan. 1-March 1, 50 cases; Chicago, March 27-April 3, 1 case; Danville, March 29-April 4, 7 cases; Fulton county, general, Jan. 1-March 1, present; Peoria, March 27-April 3, 12 cases.

Indiana: Kokomo, Jan. 20-March 7, 14 cases, 8 deaths; Muncie, March 27-April 3, 1 case; South Bend, 1 case.

Iowa: Cedar Rapids, March 1-31, 13 cases.

Kansas: Kansas City, March 27-April 3, 1 case; Topeka, March 20-27, 15 cases; Wichita, March 27-April 3, 1 case.

Kentucky: Berea, Feb. 1-April 5, 20 cases; Covington, March 27-April 3, 8 cases.

Louisiana: New Orleans, March 27-April 3, 2 cases.

Minnesota: Minneapolis, March 13-27, 5 cases.

Missouri: St. Louis, March 27-April 3, 2 cases.

New Jersey: Camden, March 27-April 3, 3 cases; Hightstown, March 3, 1 case, imported; New Brunswick, March 27-April 3, 3 cases; Paterson, March 6-April 5, 8 cases; Plainfield, March 29-April 5, 1 case; Woodbridge, March 6, 1 case.

New York: New York, March 27-April 3, 4 cases.

Ohio: Cincinnati, March 19-April 2, 10 cases; Cleveland, March 26-April 2, 1 case.

Tennessee: Knoxville, March 28-April 3, 3 cases.

Texas: Corpus Christi, April 2, present; Fort Worth, March 1-31, 10 cases; San Antonio, March 27-April 3, 4 cases.

Wisconsin: La Crosse, March 27-April 3, 2 cases.

SMALLPOX—INSULAR

Philippine Islands: Manila, Feb. 20-27, 5 cases.

SMALLPOX—FOREIGN

Brazil: Bahia, Feb. 13-27, 15 cases, 1 death; Pernambuco, Feb. 1-15, 11 deaths.

Canada: Halifax, Feb. 13-27, 5 cases.

China: Hongkong, Feb. 13-27, 4 cases; Shanghai, Feb. 28-March 6, 1 death; Tientsin, Feb. 20-27, 1 case.

Egypt: Alexandria, Feb. 18-25, 1 death; Cairo, Feb. 18-25, 27 cases, 17 deaths.

France: Paris, March 6-20, 6 cases.

Great Britain: Bristol, March 13-20, 1 case, 1 death.

India: Bombay, March 2-9, 19 deaths; Calcutta, Feb. 20-27; 332 deaths; Madras, Feb. 27-March 5, 1 case; Rangoon, Feb. 20-27, 7 deaths.

Indo-China: Saigon, Feb. 6-13, 1 case, 1 death.

Italy: General, March 13-21, 14 cases; Catania, March 6-20, 2 cases; Genoa, Feb. 1-28, 5 cases; Naples, March 14-21; 2 cases; Palermo, Feb. 28-March 6, 2 cases.

Japan: Formosa, Feb. 13-March 13, 9 cases; Kobe, March 6, 1 case, 1 death.

Java: Batavia, Feb. 13-20, 5 cases, 1 death.

Malta: Feb. 13-20, 1 death.

Mexico: Guadalajara, March 18-25, 5 cases; Monterey, March 21-28, 4 cases; Veracruz, March 21-27, 1 case, 1 death.

Netherlands, The: Rotterdam, March 20-27, 1 death.

New Foundland: St. John, March 13-20, 1 case.

Russia: Moscow, March 6-20, 54 cases, 17 deaths; Odessa, March 6-13, 1 case; Riga, March 6-20, 6 cases; St. Petersburg, Feb. 20-March 6, 23 cases, 5 deaths.

Spain: Almeria, Feb. 1-28, 2 deaths; Barcelona, March 8-22, 7 deaths; Valencia, March 12-19, 1 death.

Straits Settlements: Singapore, Feb. 13-20, 1 death.

Uruguay: Montevideo, Jan. 1-31, 1 death.

YELLOW FEVER

Barbados: General, March 22-27, 3 cases.

Brazil: Bahia, Feb. 13-27, 14 cases, 6 deaths; Para, March 6-13, 5 deaths; Pernambuco, Feb. 1-15, 1 death.

Ecuador: Guayaquil, March 6-13, 10 deaths.

CHOLERA—INSULAR

Philippine Islands: Provinces, Feb. 20-27, 48 cases, 34 deaths.

CHOLERA—FOREIGN

India: Calcutta, Feb. 20-27, 40 deaths; Madras, Feb. 27-March 5, 2 deaths; Rangoon, Feb. 20-27, 7 deaths.

Russia: Saratov, March 21, 1 case; St. Petersburg, March 19-26, 19 cases, 4 deaths.

Straits Settlements: Penang, Feb. 10-27, 1 case; Singapore, Feb. 13-27, 3 cases.

PLAGUE

Brazil: Bahia, Feb 13-27, 6 cases, 2 deaths.

Chile: Magillones, March 10, epidemic.

China: Hongkong, Feb. 6-27, 6 cases, 5 deaths.

Ecuador: Guayquil, March 6-13, 6 deaths.

India: General, Feb. 20-27, 4,717 cases, 3,750 deaths; Bombay, March 2-9, 197 deaths; Calcutta, Feb. 20-27, 36 deaths; Rangoon, 17 deaths.

Japan: Formosa, Jan. 23-March 13, 223 cases, 187 deaths; Kobe, Feb. 27-March 6, 1 death.

Turkey: Jiddah, March 15-21, 16 cases, 16 deaths.

Society Proceedings

COMING MEETINGS

AMERICAN MEDICAL ASSOCIATION, ATLANTIC CITY, JUNE 8-11.

Am. Assn. of Genito-Urinary Surgeons, Pocona, Pa., May 31-June 1.
American Gynecological Society, New York, May 27-29.
American Neurological Association, New York, May 27-29.
American Pediatric Society, Lenox, Mass., May 27-28.
American Therapeutic Society, New Haven, Conn., May 6-8.
Association of American Physicians, Washington, D. C., May 11-12.
Arizona, Medical Association of, Prescott, May 19-20.
Arkansas, Medical Society of, Pine Bluff, May 18-21.
Connecticut State Medical Society, Hartford, May 26-27.
District of Columbia, Medical Assn. of, Washington, April 27.
Illinois State Medical Society, Quincy, May 18-20.
Iowa State Medical Society, Dubuque, May 19-21.
Kansas State Medical Society, Emporia, May 5-7.
Louisiana State Medical Society, New Orleans, May 4-6.
Maryland, Med. and Chir. Faculty of, Baltimore, May 13-15.
Missouri State Medical Association, Jefferson City, May 18-20.
Montana State Medical Association, Missoula, May 12-13.
Nat. Assn for Study and Prevention of Tuberculosis, Washington, D. C., May 13-15.
Nebraska State Medical Association, Omaha, May 4-6.
New Hampshire Medical Society, Concord, May 13-14.
North Dakota State Medical Association, Fargo, May 11-12.
Ohio State Medical Association, Cincinnati, May 5-7.
Texas State Medical Association, Galveston, May 4-6.

TENNESSEE STATE MEDICAL ASSOCIATION

Seventy-sixth Annual Meeting, held at Nashville, April 13-15, 1909

The President, B. D. BOSWORTH, Knoxville, in the Chair

After addresses of welcome on behalf of the city, by Mr. J. S. Brown, Mayor of Nashville, and Dr. John A. Witherspoon, on behalf of Davison County Medical Society, with a response to these addresses by Dr. George R. West, Chattanooga, the reading of papers was proceeded with.

Officers Elected

The following officers were elected for the ensuing year: President, Dr. Jere L. Crook, Jackson; vice-president for middle Tennessee, Dr. T. J. Coble, Shelbyville; vice-president for east Tennessee, Dr. C. H. Davis, Knoxville; vice-president for west Tennessee, Dr. O. Dulaney, Newbern; secretary, Dr. George H. Price, Nashville, re-elected; treasurer, Dr. W. C. Bilbro, Murfreesboro, re-elected.

Memphis was selected as the place for holding the next annual meeting; time, second Tuesday in April, 1910.

Squint and Its Treatment

DR. WALTER DOTSON, Gallatin: The commonest cause of squint is some refractive error. To overcome this error, the muscles of accommodation are overworked, thus producing pathologic changes. The same pathologic change may be transmitted to the extraocular muscles by the same nerve supply. We should estimate under a cycloplegic, the refractive error, and correct it with lenses. We should test the strength of each extraocular muscle, and operate on the one which is at fault. If the rectus on the squinting side is abnormally strong or abnormally short, or both, then Panas' operation should be performed on it. If the recti on the opposite side of the squint are abnormally weak, or abnormally long, or both, then a Valk tucking operation should be done. If both internal and external recti muscles are at fault, then the required operation should be done on each muscle of the squinting eye, but never on both eyes.

DISCUSSION

Dr. G. C. Savage, Nashville: In March, 1893, in the *Ophthalmic Record*, I described my operation for shortening the rectus muscle. This operation is simple, effective, and free from the two prominent risks incurred in any of the advancement operations. In this, as in many other operations on the eye, cocain anesthesia can be relied on. The first step of the operation consists of a vertical conjunctival incision one-eighth of an inch behind the insertion of the tendon, and a little longer than the muscle is wide. From the lower extremity of this cut a horizontal conjunctival incision is made one-quarter inch long, near to, and parallel with the lower border of the muscle. The triangular flap of conjunctiva is now dissected up, and is held out of the way by an assistant. The second step consists in passing a strabismus hook beneath the tendon and in making a slight dissection of the connective tissue and capsule of Tenon at the upper and lower border of the muscle. The last step is the taking of the stitch for shortening the muscle. A thread is armed with two needles slightly curved. One needle is passed through the muscle from its outer surface and is brought out beneath the lower border of the muscle, the other is passed in the same way, but is brought out beneath the upper border of the muscle. The amount of tissue thus included in the loop need not be more than one-quarter the width of the muscle; and the distance of this loop behind the insertion of the tendon must depend on the amount of shortening desired. The muscle is held away from the globe by fixation forceps, while the needles are being passed as above indicated. The operator, taking a hook in his hand, draws it slightly back and at the same time gently lifts the tendon from the globe. He then takes needle No. 1 and pierces the tendon from the ocular side, at its point of insertion and between the center and its lower border, bringing it out through the conjunctiva over the insertion, then removes the needle. In a similar way needle No. 2 is passed through the tendon beneath its center and upper border, and is brought out through the conjunctiva over the insertion. This needle is then removed. The two ends of the one thread need not be more than one-eighth of an inch apart, as they emerge from the tendon. On tying the knot in the usual way, that part of the muscle at the loop is brought in contact with the tendon at its insertion, and is there confined by completing the knot. The triangular flap of conjunctiva is then allowed to fall and cover in the exposed muscle, including its "tuck." The stitch is allowed to remain from four to six days, depending on the inflammatory action excited. The stitch will excite sufficient inflammation to bind the parts in their new relationships and thus the shortening is made permanent. As in advancements, so in the shortening, it is found necessary to do either a partial or a complete tenotomy of the opposing muscle.

Under date of Aug. 15, 1895, Dr. Valk writes: "I have no doubt that you (Dr. Savage) are fully entitled to the credit for what seems to be an excellent operation."

Dr. W. Dotson: I have never heard of this operation until I saw Dr. Valk do it. He told me it was his operation, and I read a description of it in his book. I was firmly impressed with the fact that it was Valk's operation until Dr. Savage established his priority.

Surgery of the Thyroid

Dr. R. M. McCown, Knoxville: In exophthalmic goiter, to say that surgical procedure is best is not enough. Operation is indicated in all cases that do not show a degenerated heart muscle, with irregular pulse, low blood pressure and periodical attacks of delirium cordis, and in those cases associated with an enlarged thymus. A mistake often made is not operating early. Early operation in the hands of competent surgeons in the past few years has materially reduced the mortality, in that it has ranged from 2 to 4 per cent., which is not greater than in the majority of all capital operations, and the percentage of cures ranges from 5 to 90 per cent. Halsted reports 90 cases, with only 2 deaths; Mayo, 176 operations, with 8 deaths, and 70 per cent. cures. In his last 75 cases Mayo reports only one death. Kocher reports 153 cases, with 2 deaths, and 83 per cent. cures. The question of anesthesia is one of personal preference. I prefer general anesthesia. In removing the gland there should be as little maceration of gland substance as possible, because the gland juices may increase the symptoms.

DISCUSSION

Dr. William D. Haggard, Nashville: It has long been supposed that goiter bears a causal relation to the water supply, and it has been found that if the water is filtered, it depreciates the incidence of goiter. Of 13 individuals who took the filtrate, 4 contracted goiter. It was afterward observed that if the same filtrate were boiled for ten minutes, the patients to whom it was administered would not develop goiter. Therefore, there is undoubtedly in the sediment some bacteria with which we are not yet acquainted, and which may bear a causative relation in the production of goiter. Selection of cases for operation is important. Patients with swollen feet, ascites, etc., should not be operated on as they are likely to die within a few weeks or months. They should be left alone until perchance the superior thyroids alone can be ligated, and this can be done under local anesthesia, and within a few weeks or months thereafter the enlarged gland can be removed with safety. I agree with Dr. McCown that all patients with exophthalmic goiter should be operated on while the condition is in its incipiency, if possible. Only the largest part of the gland should be removed, never the entire gland, because then the patient gets myxedema.

Dr. Batle Malone, Memphis: Dr. McCown failed to call attention to one form of medical treatment which is of value. Senn, in his text-book on "Pathology and Treatment of Tumors," speaks of the use of iodin in simple hypertrophy of the gland, and states positively that when we have this condition without tumor formation, goiter will disappear under the use of iodin, and I have found this to be true. While Halsted of Baltimore has done a great many of these operations under local anesthesia, I prefer general anesthesia.

Dr. L. E. Burch, Nashville: The mortality from operations in cases of exophthalmic goiter in the hands of the best surgeons is about 5 per cent. In the ordinary form of goiter it is about 2 per cent. The most important part in the operation is not only a judicious selection of cases, but the time of operation and the proper preparation of the patient. In the exophthalmic cases we should strive to avoid gastric crises. Accordingly, patients should be put to bed, and an icebag applied over the heart. They should be kept quiet and chloral and bromids given. The great danger from the operation is tetany, which will not occur if the operation is carefully performed.

Dr. R. E. Fort, Nashville: We should avoid the application of the *x*-ray in cases of goiter, because it produces a fibrous condition of the gland, rendering its subsequent removal exceedingly difficult. The mortality is increased by the use of the *x*-ray. While Kocher and other surgeons have operated on a large number of cases of goiter under local anesthesia, I think the general trend is toward general anesthesia.

Dr. R. M. McCown: I wish to report briefly two cases of goiter that have come under my observation in the last six months. One patient, a woman of 30, had tachycardia, enlargement of the lateral lobe, and heart beat of 120. The left lobe was somewhat enlarged. She was extremely nervous, irritable, and presented a tremor. I ligated the superior thyroid artery and enucleated the gland, which was very much atrophied. The nervousness is disappearing, and she has been very much improved. In the other case I removed the goiter under general anesthesia about six months ago, and the patient has made very rapid improvement.

(To be continued)

AMERICAN ASSOCIATION OF PATHOLOGISTS AND BACTERIOLOGISTS

Ninth Annual Meeting, held in Boston, April 9-10, 1909
(Continued from page 1277)

Pathology of Arthritis Deformans

Drs. E. H. Nichols and F. L. Richardson, Boston: This paper describes two pathologic types of the disease, though there are not two distinct etiologic groups to correspond. The first is the proliferative, the second the degenerative type. In the former there is proliferation of connective tissue of the synovial membrane over the cartilages; the latter may be destroyed with the possible union of the bones. Changes in the shafts of the bones are secondary to those in the joint. In the second type, which is more common in old people, there is degeneration of articular cartilage. This begins as a fibrillation at right angles to the surface, the cartilage cells change and finally disappear until the bone may be reached. The endosteum of the spongy bone proliferate and eburnated bone forms. Then occurs a new growth of perichondrium. Ankylosis may occur from irregularity in the surfaces, even though they are not united.

Anatomy of Senile Dementia

Dr. E. E. Southard, Boston: Among 247 cases of insanity as diagnosed by several clinicians, were 42 of senile dementia. Of these, 29 brains were below normal in weight, 16 being evidently atrophy of the brain. In 5 the weight ratios were compared as in Vierordt's tables, and 3 were found opposed to the other two. Of the great group of senile dementia, many cases should be given another name to indicate the true condition.

Abnormality of Epidermal Hornification Due to Obliterative Changes in the Veins of the Corium

Dr. Oscar T. Schultz, Cleveland: In cases of psoriasis and similar affections, the literature contains descriptions of the superficial structures but nothing is said of changes in the deeper parts of the corium. My specimens show this to be a prominent lesion. There is first a proliferation of endothelium, then of cells around the vessels until, finally, the veins are obliterated. It appears probable that this leads to the changes found in the superficial structures, such as edema, parakeratosis, and others as commonly described.

Chronic Skin Lesions, Due to Repeated Exposures to the X-Rays, Including X-Ray Carcinoma

Dr. S. Burt Wolbach, Albany: Cases of chronic *x*-ray dermatitis are common and thirty-six cases of carcinoma following this condition in *x*-ray workers have been reported. Clinically, there is thickening of the epidermis, then a scaly condition of the skin, and finally an infiltrating carcinoma. The use of phosphotungstic acid hematoxylin aids greatly in studying the histology of these cases. Microscopically, there is no evidence that the epidermis is greatly susceptible to the *x*-ray. The deeper tissues, such as endothelium, connective tissue, and smooth muscle fibers are much more susceptible. The changes in these are: 1. Obliteration of vessels by degeneration and proliferation of endothelium. The muscle coat of the vessels also degenerates and its place is taken by connective tissue. This begins in the small vessels and finally involves the larger ones. 2. The formation of foci of degeneration due to obliteration of vessels. The larger of these foci lead to ulceration. 3. Downward proliferation of epithelium into and around the areas of degeneration. The production of tumors can not be ascribed to primary action of the *x*-rays on the epithelium.

DISCUSSION

Dr. A. S. Warthin, Ann Arbor: Has Dr. Wolbach noted any difference in the type of the carcinomas studied? I have observed an instance in a medical student, treated for lupus, in which a growth appeared two years later. This proved to be a basal-celled epithelioma originating in the sebaceous glands and bearing no relation to the superficial epithelium.

Dr. Wolbach: The three cases of tumor I studied were of the epidermoid type.

Transplantation of Devitalized Arterial Segments; Morphologic Changes in the Implanted Segments

Drs. Isaac Levin and John H. Larkin, New York: Specimens from three series of experiments on the aortas of dogs were shown. The technic was a slight modification of that employed by Carrel. Histologic studies of tissues from 24 hours to 10 weeks after transplantation were made. They showed the occurrence of gradual changes in the introduced segment, leading to the disappearance of the various structures and the formation of a fibrous tube around it which finally occupied its place. Calcareous infiltration also occurred in some instances. In the dog which lived for ten weeks, anastomotic circulation had formed. Blood had evidently passed through, and remained fluid, for several days before a thrombus formed, showing that living endothelial cells are not necessary as a boundary.

Behavior Toward Filariæ of Tissues of Cattle Inoculated with Cultures of Human Tubercle Bacilli

Dr. Theobald Smith, Boston: Flattened nodules were found on the omentum of cattle after injections of human tubercle bacilli and in these nodules were filariæ, either degenerated or in a healthy condition. This form is not known to be a stage in the life of the filaria and the possible explanation is that under the influence of injections of tubercle bacilli the filariæ are stimulated, or are collected in the focus of proliferation of the tubercle bacillus. The practical point is that possibly filariæ in the human being become annoying at times because of the influence of other infections in the host.

Viability of the Tubercle Bacillus

Dr. Theobald Smith, Boston: Cultures of a strain of the tubercle bacillus which had been carried along for years were made and placed in the refrigerator for fourteen months, when the bacilli were still living and virulent. One tube was kept twelve months in the refrigerator and then the bacilli lived seven months in salt solution. Very few of the bacilli were alive, hence it was the case of one bacillus in one thousand or in ten thousand possessing an exceptional vitality.

Rapid Diagnosis of Rabies with Special Reference to Lesions in Gasserian Ganglion

Dr. Langdon Frothingham, Boston: Assuming that Negri bodies are diagnostic of rabies, the rapid demonstration of them is a point of great importance. They can always be found in the cells of Ammon's horn and the question arose as to whether those cells would adhere to a slide if it were pressed against the fresh tissues. This was tried and found to work satisfactorily. The best method of treating the films is to plunge them at once into methyl alcohol, which instantly fixes them. They are then stained by Van Giesen's method one minute. The red cells do not stain by this method, which prevents confusing them with the bodies. When the brain can not be obtained then the posterior root ganglia or the Gasserian ganglion must be employed. I have made a systematic study of the latter in 700 animals and find two types of lesions: 1. The typical or focal lesion. The ganglion cells are destroyed and their place taken by cells of the endothelial type; the nucleus may be little or not at all affected. 2. The atypical or diffuse lesion is a diffuse infiltration between the ganglion cells of a connective tissue type of cell. The lesions in the Gasserian ganglion are therefore not specific for rabies.

DISCUSSION

DR. W. T. HOWARD, Cleveland: In one case a dog bit three groups of children. In the Ammon's horn of the dog were Negri bodies. The children were given the Pasteur treatment. One died some time later with symptoms suggesting meningitis. Neither Negri bodies nor rabic tubercles could be found and the Gasserian ganglia were normal. A guinea-pig was inoculated with material from the medulla and soon died. No Negri bodies were found in its brain. A second pig was inoculated with the medulla of the first pig and died; it also showed no Negri bodies. The medulla of the second pig inoculated into a rabbit caused typical rabies and in its tissues Negri bodies were found.

(*To be continued*)

Medical Education and State Boards of Registration

COMING EXAMINATIONS

FLORIDA: Tallahassee, May 19-20. Sec., Dr. J. D. Fernandez, Jacksonville.
GEORGIA: Regular: Capitol Bldg., Atlanta, April 30-May 1. Sec., Dr. E. R. Anthony, Griffin. Homeopathic: Atlanta, May 1. Sec., Dr. R. E. Hinman, 153 Whitehall St.
LOUISIANA: *Regular: New Orleans, May 20-21. Sec., Dr. Felix A.* Larue, 211 Camp St. Homeopathic: 919 St. Charles St., New Orleans, May 3. Sec., Dr. Gayle Aiken, 1102 St. Charles Ave.
MASSACHUSETTS: State House, Boston, May 11-13. Sec., Dr. Edwin B. Harvey, Room 159, State House.
MISSISSIPPI: State Capitol, Jackson, May 11-12. Sec., Dr. S. H. McLean.
MISSOURI: Kansas City, May 17-19. Sec., Dr. J. A. B. Adcock, Warrensburg.
NEBRASKA: State Capitol, Lincoln, May 25-27. Secretary, Dr. E. J. C. Sward, Oakland.
NEVADA: Carson City, May 3. Sec., Dr. S. L. Lee.
NEW YORK: Albany, May 18-21. Dr. Charles F. Wheelock, Albany.
TENNESSEE: Nashville, Memphis, Knoxville, May 4-5. Sec., Dr. T. J. Happel, Trenton.

COUNCIL ON MEDICAL EDUCATION OF THE AMERICAN MEDICAL ASSOCIATION

Fifth Annual Conference, held at the Auditorium Hotel, Chicago, April 5, 1909

Besides the members of the Council, 90 delegates were present, representing 21 state examining boards, 15 state medical societies, 2 departments of the government services, 1 confederation of examining boards, 1 college association and 3 national medical associations, as well as 35 medical and liberal arts colleges.

CHAIRMAN'S ADDRESS

The conference was called to order at 10 a. m., by the chairman, Dr. Arthur Dean Bevan, who delivered the following address:

Gentlemen, Delegates from the state licensing bodies, from the state medical societies, from the National Institute of Homeopathy, from the National Eclectic Medical Association, from the medical college associations, from the confederations and associations of state licensing boards, from the United States Army and Navy Medical Corps and the Public Health and Marine-Hospital Service, from the schools of liberal arts, officers of the American Medical Association and invited guests.

The Council on Medical Education of the American Medical Association has invited you to this fifth annual conference to discuss the subject of medical education and to ask your advice and cooperation in the effort to elevate the standards of medical education in this country.

It might be well to briefly review the work of the four previous conferences. The first annual conference was held in Chicago April 20, 1905. At this conference the questions of preliminary education, medical curriculum and the relation of the college of liberal arts to the medical school were discussed. As a result of this discussion the Council formulated as the minimum standard of the American Medical Association the following:

MINIMUM STANDARD

(*a*) A preliminary education sufficient to enable the student to enter the freshman class of our recognized universities; (*b*) The passing on the credentials of such an education by a state official; (*c*) The graduation from an approved medical college requiring a four years' course of not less than 30 weeks each year with 30 hours each week, of actual work. (*d*) The passing of an examination for licensure before a state board.

IDEAL STANDARD

The Council further formulated a so-called ideal standard which should be secured as rapidly as the conditions throughout the country warranted. This ideal standard was briefly as follows:

(*a*) A four year high school education, (*b*) a year's university training in physics, chemistry and biology, (*c*) four years of medicine proper, and (*d*) one year as interne in a hospital or dispensary.

THE SECOND CONFERENCE

At the second conference, held in Chicago, May 12, 1906, these standards were restated and probably the most important facts presented were the standings of the various medical colleges based on the failures of their graduates in examinations before state boards. The colleges were divided into three groups: Group I, colleges having less than 10 per cent. of failures; Group II, colleges having from 10 to 20 per cent.; and Group III, colleges having above 20 per cent. A fourth unclassified list was made of those colleges which had insufficient data to permit of comparison. These reports have been productive of much good in stimulating faculties to guard against the graduation of illy prepared students.

THE THIRD CONFERENCE

At the third conference, held in Chicago, April 29, 1907, a *detailed report of a personal inspection made by members of* the Council of all the medical schools of the United States was presented. *In this inspection the schools were marked on* a civil service basis consisting of ten points covering the essentials *of a modern medical college, these 10 points making* a possible 100. And on this basis the colleges as graded were *divided into three groups. The result was as follows: An acceptable group of 82 colleges with marks from 70 to 100, a conditioned group of 46 colleges with marks from 50 to 70,* and a rejected group of 32 colleges with marks below 50.

This personal inspection of colleges is being continued and the second inspection will soon be completed.

THE FOURTH CONFERENCE

The fourth annual conference held in Chicago, April, 1908, was from many standpoints the most encouraging and interesting of the series. The secretary, Dr. N. P. Colwell, was able to show, in a graphic study of medical education in the various states of the Union and in the twenty most important countries of the world, the comparative position of medical education in this country with that of the rest of the world. While many deficiencies were disclosed it was shown that more than fifty first-class schools in this country had agreed to accept what has been adopted by all the rest of the world, i. e., *a five year medical course.* This is to be brought about by adding to our present preliminary requirements of a four year high school course, at least one year of physics, chemistry and biology.

This advance requirement has become so general that it will doubtless be adopted by all first-class schools within the next few years and thus place American medical education on a par with that of England, France, Germany, Austria, Canada—in fact, with that of all our neighbors and rivals in progress and civilization.

In the study of medical education in this country, as we compare the existing conditions with those existing in Germany and England, we are shocked by our many short-comings. However, we are tremendously encouraged by the progress that has been made in the last five or ten years, and are urged to redouble our efforts to secure uniform and acceptable American standards. This can be done only by wiping out of existence a large number of alleged medical colleges which at present disgrace American medicine.

AGENCIES AT WORK

In this effort to elevate standards and secure acceptable conditions in medical education many agencies are doing splendid work: *The medical colleges themselves,* the associations of medical colleges, the universities and colleges of liberal arts, *the confederations* of state boards, the medical societies, etc. Such conferences as we are having to-day also have much weight, and yet, after all has been said, the clear and definite fact remains that the legal power to control and elevate the standards of medical education rests entirely and alone with the state boards. It is in the power of the state boards to so raise the preliminary requirements and to exact such fair and complete medical preparation as to secure for such states competent medical practitioners. While in some states the conditions of general education and public opinion are not such as would warrant the immediate exaction of proper standards, in most states the conditions would warrant such a stand at the present time. In the Middle West, for instance, if such states as Ohio, Indiana, Michigan, Illinois, Kentucky, Wisconsin and Iowa should do as is to be done in Minnesota, North Dakota, South Dakota and Colorado, demand of their medical men a higher preliminary education, including thorough work in physics, chemistry and biology, public and professional opinion would doubtless unanimously support them in such a position. Then the battle for higher medical standards in this country would be practically won. Even in the other states the general educational advance is such that proper standards can be demanded within the next few years.

Most of you are familiar with the fact that our northern neighbor, Canada, has just added the preliminary science year to her medical curriculum.

COLLEGE MERGERS

Another encouraging fact to be noted is the mergers being made among medical schools whereby stronger schools are resulting. Notably in Indiana, all of the regular schools in the state merged into the medical department of Indiana University, while in Kentucky all of the medical schools merged into the University of Louisville. In Cincinnati the two regular schools merged into the University of Cincinnati; in Minnesota Hamline merged into the medical department of the University of Minnesota.

There are numerous other cities where mergers might be brought about if those interested in general education and those in medical education in each city would work together to secure them. For example, if all the medical colleges of any large city, such as Chicago, Philadelphia, St. Louis or others could be merged into one great university medical school, such as are to be found in Berlin, Paris or Vienna, it would be of the greatest possible advantage to medical education in America.

In the evolution of general and medical education in this country it is becoming more and more evident that a well-rounded university needs a strong medical department and it is now equally clear that a medical school can not reach the highest stage of its development except as the medical department of a strong university. It is evident that within a few years the medical schools of this country will, with few exceptions, be the medical departments of universities. Fortunately for the medical school, the university needs the medical school quite as much as the medical school needs the university, so that almost any independent medical school of real merit can secure desirable union with a university. And this change will solve most of our present problems in medical education.

PRESENT DEMANDS

Briefly, what does the present situation of medical education demand for a satisfactory solution?

1. The passing of commercial medical schools and the merging of the better schools to form strong medical departments of universities.

2. Endowments both private and state for the proper maintenance of such medical departments. The experience of the last few years has shown clearly that the modern medical school needs such endowments, as it can not be properly supported on the fees of students, and it has been demonstrated that such endowments can not be secured for the independent medical schools.

3. As the most important public health measure each state should demand through its state licensing board complete and thorough medical preparation of those seeking to practice medicine within its boundaries. This must include (*a*) a proper preliminary education, (*b*), a thorough medical course pursued in a reputable medical college, and (*c*) a practical and thorough examination such as will be an actual test of applicant's ability to practice medicine.

The program of to-day consists of three topics: The report of a committee of 100 on the medical curriculum, the desirability and value of such curriculum, necessary equipment, etc., from the state board standpoint, and the question of making the state board examination more of a practical test of the candidate's ability to practice medicine.

This conference is purely informal. Its purpose is to elicit the widest possible discussion of the topics considered. It is hoped that all delegates will take an active part in the discussions. It is my great pleasure to welcome you all in the name of the American Medical Association.

(*To be continued*)

Medical Education and Nostrums, Eighth Letter

This is the eighth of a series of letters issued jointly by the Council on Medical Education and the Committee on Medical Teaching of the Council on Pharmacy and Chemistry:

To Medical Teachers:—This letter contains some suggestions for the departments of chemistry, biochemistry and dietetics. Failure on the part of students to obtain a practical grasp of these fundamental sciences is the failure of a most powerful protection against the nostrum evils.

Chemistry.—Unscrupulous manufacturers traffic in the assumed ignorance of the medical profession concerning the most elementary facts of chemistry. Indefinite mixtures are given the appearance of scientific discoveries by endowing them with fictitious chemical formulas (see report on Acetanilid Mixtures, The Journal, June 3, 1905, p. 1791): or the true formula, or a correct but unusual chemical name, is used to mystify the physician and to conceal the nature of constituents which are commonly known under other names, for instance, Alleotone (The Journal, Oct. 17, 1908, p. 1346). The success of these practices reflects unfavorably on the efficiency of our chemical teaching. It is not to be expected that medical students can be trained into expert chemists in the time at our disposal; but it would be quite practical to point out the more obvious and common of these pitfalls, and thus guard them from many absurd situations. The "Propaganda" pamphlets contain the most conspicuous examples of these practices. These could be introduced as a diversion, say under the subject of acetanilid and referred to incidentally in other parts of the course, without taking up a serious amount of time. The discussion of some of the reports of the Association Laboratory could be made the basis of some instructive seminars in practical analytical chemistry.

Biochemistry.—The twilight state of our knowledge of ferment-action is peculiarly congenial to the mystery-cult of the nostrum-maker. The report on the Reed & Carnrick preparations would serve as a good illustration of the absurdity of over-speculation. We do, however, know certain empirical facts about ferments, which some manufacturers find it profitable to ignore. The mutually destructive action of pepsin and trypsin is a prominent example (see "Digestive Impossibilities," The Journal, Feb. 9, 1907, p. 533). The inferior digestive power of these and other proprietary mixtures, the variability of the ordinary preparations, as also the practical inactivity of the pretended ferments from unusual sources, such as the "nucleo-enzymes" and ingluvin (The Journal, July 11, 1908, p. 142); all these are matters of profitable interest to the student and could be demonstrated with little trouble. He should also be warned against the statements of digestive strength, based on biased methods, as shown in the report of the Council on diastase ferments (The Journal, July 11, 1908, p. 140).

The important fact that substances can not be supposed to act directly on the body unless they are absorbed can be convenietly demonstrated with some of the formaldehyd derivatives (The Journal, Sept. 5, 1908, p. 818).

Dietetics.—It is very important that students should be cautioned that many of the so-called "medicinal" liquid foods have practically no nutrient value, and that a patient is more easily starved than fed with them (The Journal, May 11, 1907, p. 1612). Similarly, the fact should be emphasized that "cod-liver oil without the grease" can not act as a nutrient (The Journal, Oct. 13, 1906, p. 1207).

Marriages

Stephen S. Barat, M.D., to Miss Louise Clingman, both of Chicago, April 17.

Howard Lewis, M.D., Elida, Ohio, to Miss Josephine Saunier, of Cincinnati, April 5.

R. C. Paisley, M.D., New Athens, Ohio, to Miss Pollock, of near Uniontown, Ohio, April 21.

George F. Juenemann, M.D., U. S. Army, to Miss Ruby Mulkey Ireland, at Pasadena, Cal., March 18.

Nathaniel T. Dulaney, M.D., Blountville, Tenn., to Miss Mary Emma Gammon, of Bristol, Tenn., April 7.

Deaths

Harry Ogden Fairweather, M.D. Albany (N. Y.) Medical College, 1896; captain and assistant surgeon, Second Infantry, N. G. N. Y.; rhinologist and laryngologist to Troy Hospital, St. Vincent's Orphan Asylum, and the House of the Good Shepherd, Troy; a member of the Association of Military Surgeons of the United States and a veteran of the Spanish-American War; treasurer of the local board of United States Pension Examiners; a captain in the Troy volunteer fire department; died at the Troy Hospital, April 8, from the effect of a fracture of the base of the skull, sustained in a fall from a ladder while engaged in fighting a fire, two days before, aged 35.

Allen Vinton Smith, M.D. Rush Medical College, Chicago, 1880; assistant surgeon of the Eighth Ohio Infantry, U. S. V., during the Spanish-American War; a member of the Association of Military Surgeons of the United States; visiting surgeon to the Aultman Hospital, Canton; and a member of the city council and health officer of Canton: died at his home in that city, April 10, from heart disease, aged 53.

George G. Farnandis, M.D. University of Maryland, Baltimore, 1852; physician to the Baltimore Almshouse from 1856 to 1859 and 1870 to 1875; demonstrator of anatomy at the University of Maryland in 1860; surgeon in the Confederate Service throughout the Civil War; professor of surgery in Washington University, Baltimore, from 1871 to 1873; died at his home in Baltimore, April 4, aged 80.

Louis Raoul Stark, M.D. New Orleans School of Medicine, 1867; a member of the American Medical Association; one of the founders of, and professor of gynecology in the University of Arkansas, Little Rock: a Confederate veteran and assistant surgeon general of the United Confederate Veterans; died at his home in Little Rock, April 10, from erysipelas, aged 67.

Benjamin Franklin Miesse, M.D. Bellevue Hospital Medical College, New York City, 1865; surgeon of the One-Hundred and Forty-ninth Ohio Volunteer Infantry during the Civil War; for two years health officer, and for seven years a member of the school board of Chillicothe, Ohio; died at his home in that city, April 3, from nephritis, aged 68.

Henry C. Potter, M.D. Albany (N. Y.) Medical College, 1844; and for a short time one of the health officers of Utica, N. Y.; a founder, builder and vice-president of the Pere Marquette system; for many years a resident of Saginaw, Mich.; died at the San Ysidro ranch, near Santa Barbara, Cal., April 3, from senile debility, aged 85.

Arthur Hyatt Clark, M.D. College of Physicians and Surgeons, New York City, 1877; a member of the Minnesota State Medical Association, and Southwestern Minnesota Medical Society; for many years health officer of Worthington, Minn., and local surgeon of the Rock Island System; died at his home March 4, from uremia, aged 61.

Elbert Gilbert Benson, M.D. Washington (D. C.) Homeopathic Medical College, 1896; president of the Eclectic Board of Medical Examiners of the District of Columbia, and a member of the Board of Medical Supervisors of the District; died at his home in Washington, March 27, from pneumonia, aged 50.

William Taylor Duncan, M.D. McGill University, Montreal, 1882; a member of the American Medical Association: city physician of Fergus Falls, Minn.; formerly a member of the city council and coroner of Ottertail county; died in his office, April 7, from an accidental gunshot wound of the head, aged 53.

Charles Ernest Lancaster, M.D. Medical School of Maine, Brunswick, 1888; a member of the local board of U. S. pension examining surgeons: died at his home in Brunswick, April 5, from paralysis, following an accident in which he was thrown from his carriage, three weeks before, aged 46.

Louis Benjamin Durocher, M.D. University of the Victoria College, Coburg, Ont., 1853; later a professor in that institution; and afterward a professor and emeritus professor and dean of the Medical Faculty of Laval University, Montreal; died at his home in that city, April 5, aged 78.

Louis Stern, M.D. University of Würzburg, Germany, 1878; of San Francisco; one of the founders and a member of the staff of the German Medical Society; a specialist on diseases of the eye, ear, nose and throat; died in the German Hospital,

Jonas L. Kline, M.D. Bellevue Hospital Medical College, New York City, 1867; a veteran of the Civil War, and for more than thirty years a practitioner of Schuylkill county, Pa.; died at the home of his sister at Catasaqua, March 25, from cerebral hemorrhage, aged 72.

Albert William Neufield, M.D. College of Physicians and Surgeons, New York City, 1882; for many years chief pharmacist of the New York Dispensary; a fellow of the New York Academy of Medicine; died in Mount Sinai Hospital, New York City, April 11, aged 52.

Alva Buell Mayfield, M.D. Memphis (Tenn.) Hospital Medical College, 1893; a member of the State Medical Association of Texas; local surgeon of the Missouri, Kansas and Texas Railroad; died at his home in Mineral Wells, from uremia, February 14, aged 44.

Dewitt F. Ireland, M.D. Maryland Medical College, Baltimore, 1900; died in his office in Middlebourne, W. Va., April 4, from the effects of a gunshot wound of the heart, believed to have been self-inflicted with suicidal intent, aged about 40.

John L. Logan, M.D. Kentucky School of Medicine, Louisville, 1859; of St. Joseph, Mo.; a surgeon in the Federal service during the Civil War; fell on a slippery sidewalk in St. Joseph, January 18, and died a few minutes later, aged 72.

John Madison Munday (license, Ky., 26 years of practice, 1894); for more than forty years a practitioner of Mercer county, Ky.; died at his home in Pleasant Hill, near Harrodsburg, March 20, from carcinoma of the liver, aged 69.

Charles L. Buddenbohn, M.D. Washington University School of Medicine, Baltimore, 1873; coroner of the southwestern district of Baltimore county in 1898; died at his home in South Baltimore, April 7, from angina pectoris, aged 58.

Abijah D. Scruggs, M.D. Jefferson Medical College, Philadelphia, 1867; a member of the American Medical Association; a Confederate veteran; died at his home in Knoxville, Tenn., April 9, three weeks after a surgical operation, aged 66.

David A. Williams, M.D. Miami Medical College, Cincinnati, 1888; of Franklin, Ohio; a member of the American Medical Association; died suddenly from heart disease while watching a conflagration in that place, April 9, aged 49.

Hugh J. DeVer, M.D. University of Aberdeen, Scotland, 1875; for eight years surgeon in the British Navy; afterward a surgeon on transatlantic steamers; died at his home in Waterbury, Conn., April 9, from pneumonia, aged 56.

James Knight, M.D. Iowa Medical College, Keokuk, about 1860; license, Ont., 1869; a member of the Toronto Medical Association; died at the home of his son in Jerry, Wash., Dec. 26, 1908, from valvular heart disease, aged 75.

Harry Olin Lyford, M.D. Missouri Medical College, St. Louis, 1893; a member of the Oklahoma State Medical Association; president of the Sapulpa board of health; died at his home, March 25, from meningitis, aged 49.

Thomas William Carlaw, M.D. Trinity Medical College, Toronto, 1893; L.R.C.S. and L.R.C.P., Edinburgh, 1898; L.F.P. and S., Glasgow, 1898; died at his home in Campbellford, Ont., Nov. 5, 1908, aged 45.

Howard E. Mitchell, M.D. University of Maryland, Baltimore, 1882; of Ellerslie, Md.; died at the Western Maryland Hospital, Cumberland, April 6, forty-eight hours after having been struck by a train, aged 54.

Samuel Alonzo Hazen, M.D. New York University, New York City, 1878; for five years a member of the faculty of Columbia University; died at his home in Sharon, Pa., April 7, from nephritis, aged 65.

Oscar M. Barber, M.D. New York Homeopathic Medical College, New York City, 1871; for several years health officer of Stonington, Conn.; died at his home in Mystic, Conn., April 3, from gastritis, aged 71.

George A. Starkey, M.D. Louisville (Ky.) Medical College, 1884; of Waynesville, Ill.; a member of the Illinois State Medical Society; died in Eureka Springs, Ark., March 19, from leukemia, aged 51.

Andrew Bennett Gorham, M.D. Yale University, New Haven, 1879; a member of the Connecticut State Medical Society; died at his home in Wilton, March 30, from nephritis, aged 58.

John M. Pirtle, M.D. Kentucky School of Medicine, Louisville, 1852; a veteran of the Mexican War; died at his home in Los Angeles, Cal., March 28, aged 80.

David B. Milliken, M.D. New York University, New York City, 1854; a member of the American Medical Association; died at his home in Landisburg, Pa., Dec. 14, 1908, from angina pectoris, aged 75.

George Frederick Thomin, M.D. Medical College of Ohio, Cincinnati, 1869; formerly of Williamstown, Mo.; died at the home of his daughter in Butte, Mont., April 7, from cerebral hemorrhage, aged 61.

Oscar W. Slettengren, M.D. University of Upsala, Sweden, 1885; for several years surgeon on the Hamburg-American steamship line, died at his home in Boston, April 5, from pneumonia, aged 61.

James Knox Niven, M.D. McGill University, Montreal, 1901; M. C. P. & S., Manitoba; of Minnedosa, Man.; a veteran of the Boer War; died at the home of his father, in London, Ont., March 30, aged 30.

Thomas Theodore Hay, M.D. Medical College of the State of South Carolina, Charleston, 1845; died at his home in Raleigh, N. C., from uremia, following prostatic hypertrophy, March 4, aged 85.

George M. McKenney, M.D. Rush Medical College, Chicago, 1889; of Oregon, Ill.; a member of the American Medical Association; died in Amarillo, Texas, March 23, from ptomain poisoning, aged 44.

Milton Newberry, M.D. University of Pennsylvania, Philadelphia, 1855; for fifty-four years a practitioner of Montgomery county, Pa.; died at his home in Fort Washington, April 4, aged 79.

Homer Lawrence Mathews, M.D. Bennett College of Eclectic Medicine and Surgery, Chicago, 1874; for more than 60 years a practitioner; died at his home in Auburn, Neb., March 30, aged 85.

Bernard J. Downey, M.D. University of Michigan, Ann Arbor, 1895; for a time city physician of Ottawa, Ill.; died at the home of his parents in that city, April 7, aged 36.

Robert E. Barnes, M.D. University of Michigan, Ann Arbor, 1857; surgeon in the Army during the Civil War; died at his home in Galesburg, Ill., April 6, aged 78.

George Emit Martin, M.D. College of Physicians and Surgeons, Keokuk, Iowa, 1882; died at his home in Newkirk, Okla., March 22, from nephritis, aged 52.

Edward Pontney Irons, M.D. University of Maryland, Baltimore, 1855; assistant surgeon in the Army in 1865; died at his home in Baltimore, April 4, aged 84.

Isaac H. Lewis, M.D. Western Homeopathic College, Cleveland, 1857; one of the earliest settlers of David City, Neb.; died at his home April 3, aged 81.

Foster P. Utley, M.D. University of Vermont, Burlington, 1883; formerly of Syracuse, N. Y.; died at his home in Taberg, N. Y., April 6, aged 54.

Kelse Monjar Hoffman, M.D. Western Reserve University, Cleveland, 1870; died at his home in Clintonville, Pa., from anemia, February 21, aged 77.

Charles Lewis Seymour, M.D. Medical College of Ohio, Cincinnati, 1894; died at his home in Kingsville, Texas, February 15, from pneumonia, aged 43.

Frank Foster Crandell, M.D. Cleveland Homeopathic Medical College, 1903; died at his home in Turtle Creek, Pa., April 10, from pleurisy, aged 40.

Joseph B. Benson, M.D. McGill University, Montreal, 1875; first mayor of Chatham, N. B.; died at his home in that city, April 7, from pneumonia.

John H. Cramer, M.D. Missouri Medical College, St. Louis, 1861; formerly of Mandeville, Mo.; died at his home in Bogard, March 30, aged 72.

James Clinton Field, M.D. Louisville (Ky.) Medical College, 1882; of Americus, Ga.; died in the Macon (Ga.) Hospital, April 7, aged about 50.

Robert J. Harris, M.D. Louisville (Ky.) Medical College, 1890; postmaster of York, Ala.; died at his home April 3, aged about 45.

David M. Lines, M.D. Eclectic Medical Institute, Cincinnati, 1882; formerly of New Orleans; died in Tampico, Mexico, Dec. 7, 1908.

Brock Carter, M.D. École de Médecine et de Chirurgie, Montreal, 1846; died suddenly at his home in Montreal, April 5, aged 83.

Duncan A. Stewart, M.D. Trinity Medical College, Toronto, 1877; died at his home in Ailsa Craig, Ont., Dec. 1, 1908, aged 59.

Hosea Hudson (license, Neb., 1891); a pioneer physician of Nebraska; died at his home in Chappell, January 7, aged 81.

John A. Rogers, M.D. Cincinnati, 1843; died at his home in Kenton, Ohio, March 16, from senile debility, aged 89.

John W. Hulme (license, Tenn., 1889); died at his home in Santa Fe, Tenn., Dec. 1, 1908, from cystitis, aged 70.

Thomas W. Bedford, M.D. University of Louisville, Ky., 1861; died at his home in Chaplin, Ky., April 10.

Medical Economics

THIS DEPARTMENT EMBODIES THE SUBJECTS OF ORGANIZATION, POSTGRADUATE WORK, CONTRACT PRACTICE, INSURANCE FEES, LEGISLATION, ETC.

Medical Legislation in Various States

The following items of interest regarding medical legislation have been reported since the publication of the last summary:

ARIZONA

The Arizona Medical Association is endeavoring to secure the passage of a bill making an appropriation for a bacteriologic and chemical laboratory in connection with the University of Arizona, for the purpose of making analyses of milk, water, foods, etc. Twelve hundred dollars is asked to maintain the laboratory.

ARKANSAS

S. B. 165, creating a separate board of medical examiners for physiomedical physicians, was defeated in the senate by a vote of seven to seventeen.

CALIFORNIA

The "naturopathic" bill, previously referred to, has been defeated.

COLORADO

A bill providing for a state board of osteopathy has passed the senate. A bill empowering the University of Colorado to conduct courses in medicine, pharmacy and chemistry at Denver as well as at Boulder, has passed both houses. H. B. 185, amending the medical practice act, has passed the house.

CONNECTICUT

Among the important bills before the general assembly is one providing for the establishment of a Connecticut Colony for Epileptics, authorizing the appointment of three commissioners to select and purchase a location and erect suitable buildings. The bill provides that the state is to pay $200 annually for each patient in the colony, while the expenses of traveling and clothing are to be paid by the towns from which they come. An antivaccination bill to make it unlawful for any board of health, board of education or other public boards to compel the vaccination of any infant or to make vaccination a condition for attendance on any public or private school in the city, and the usual optometry bill, are also before the legislature.

DELAWARE

The legislature has passed amendments to the present vital statistics act which will bring Delaware in line with the other states and probably secure its admission to the registration area.

ILLINOIS

No change has taken place in the legislative situation in this state.

IOWA

The county hospital bill has become a law. It provides that on petition of any 200 persons resident in a county the board of supervisors shall order a special election to decide whether the county shall issue bonds to build and maintain a county hospital and tuberculosis sanitarium. If the election results in favor of a hospital, the supervisors are to appoint a board of seven hospital trustees and to issue bonds for the erection of the hospital. A bill to consolidate the state boards of pharmacy and health, the state food and dairy commission and examining boards in medicine, chemistry and veterinary surgery, the department of tuberculosis of the state board of control and the office of the state veterinarian surgeon and to put all the boards and offices under the control of a state board of health, has been prepared by the executive committee of the state society. The bill provides for a board of three members to be appointed by the governor who shall devote their entire time to the work of the commission and receive a salary of $5,000 each. This board is to have entire charge of all health matters in the state, including vital statistics, quarantine, dairy products, food and drugs, inspection of street cars, railway cars, hotels, restaurants, sewage systems, etc., as well as a bureau of publicity. The bill is said to have the endorsement and support of Governor Carroll. It is of interest, as representing the inevitable reaction from the multiple boards which have so markedly increased in past years.

MISSOURI

The vital statistics bill, patterned after the model bill on this subject drafted by and endorsed by the Committee on Medical Legislation of the American Medical Association, has passed both houses and become a law. This is probably the most important legislative advance made this year. The addition of Missouri, with the cities of St. Louis and Kansas City, to the registration area, is an enormous gain. The medical profession of the state and particularly those having charge of the legislative work, are to be congratulated on the success of their efforts.

NEBRASKA

H. B. 322, providing for the care of indigent consumptives, has become a law. It provides that any person afflicted with tuberculosis of the respiratory tract who is without means to pay for hospital treatment may be admitted to a suitable hospital on order of the Nebraska State Board of Health and given proper care and treatment at the expense of the state. Hospitals or sanitariums to which such patients are sent are required to use the most modern means of treatment. The expense of the care of such patients falls on the county in which the patient lives. On written application to the county judge on the part of the patient or some relative or friend the judge is to order a hearing and examine witnesses under oath. If the judge is satisfied that the application complies with the requirements of the law he must prove the application in writing and certify it to the county board, which must thereupon furnish transportation to some hospital in the state approved by the State Board of Health. This law involves a new principle, viz., that of a court declaring a citizen to be an invalid and entitled to public care. S. B. 18, creating a board of osteopathic examiners of five persons and H. B. 70, providing for the registration of trained nurses under the supervision of the State Board of Health, have become laws. The latter provides that examinations shall be held at least once a year which shall be limited to nurses of twenty-one years or over, with good moral character, who have received an education equivalent to that required for admission into high schools and who have graduated from a training-school, connected with a general hospital or sanitarium, requiring at least two years' training. Nurses graduating prior to Jan. 1, 1911, are permitted to register without examination. Only those registered by the board are to be known as registered nurses. Gratuitous nursing by friends or members of a family, of invalids, as well as nursing by persons who do not assume to be registered nurses is specifically exempt.

NEW YORK

The antivivisection bills introduced early in the session of the legislature have been killed, through the decision of the assembly committee on judiciary, which did not report either of the bills restricting animal experimentation. A bill providing for the appointment of not less than 10 or more than 60 physicians in each judicial district as medical expert witnesses to serve in any civil or criminal action in the district has been introduced into the assembly.

NORTH CAROLINA

An optometry bill, similar to the bills introduced in other states, has become a law.

PENNSYLVANIA

The discussion over the Herbst-Shreve bill, previously referred to, has occupied much attention as well as a large amount of space in the newspapers of the state, and has been discussed from all points of view. The bill was subject to so much amendment and manipulation that it is exceedingly difficult to say just what was the final status of its provisions. Unusual public interest was shown in the matter and the entire question of state regulation of the practice of medicine has been generally discussed. The bill was finally dropped from the calendar on April 14, on motion of Mr. Shreve, who introduced it. An osteopathic bill, providing for a separate board of examiners, has been signed by the governor.

WEST VIRGINIA

An osteopathic bill has been introduced, also a bill creating a state board of control and a state board of regents consisting of three members appointed by the governor, which board shall have entire charge of all state institutions, educational and charitable.

POSTGRADUATE COURSE FOR COUNTY SOCIETIES

DR. JOHN H. BLACKBURN, DIRECTOR
Bowling Green, Kentucky

[The Director will be glad to furnish further information and literature to any county society desiring to take up the course.]

Ninth Month—Fourth Weekly Meeting

PARALYTIC DEMENTIA

Synonyms.—Dementia paralytica; progressive general paralysis; general paresis; general paralysis of the insane.

Etiology.—Age, sex, mental strain, alcoholism, heredity. Syphilis.

Symptoms.—(a) Prodromal stage: Insidious onset, sleeplessness, tremors, irritability, depression, dull headache, general pains, malaise, digestive disorders. Mental symptoms: Loss of memory, errors in speech or writing, misuse of words, indifference of proprieties and higher sentiments; becomes extravagant, indulges in excesses. Physical symptoms: Facial paralysis, ocular palsies, Argyll-Robertson pupil, changes in reflexes, muscular tremors, difficulties in articulation, slight syncope, epileptiform seizures, gastric and visceral crises, tactile and pain sensibilities diminished. Course and duration of prodromal stage. (b) Established disorder: Mental symptoms: Failure of memory, diminished number of ideas, weakened judgment, lack of orientation, delusions (exalted or depressed), hallucinations and illusions, emotional irritability, loss of ethical and esthetic feeling. Physical symptoms: Peculiar articulation and writing (poetic), tremor, pupillary irregularities, changed reflexes, muscular weakness, apoplectiform and epileptiform crises, emaciation, trophic disorders. Occurrence of remissions, duration. (c) Terminal period: Progressive changes in mind and body.

Pathology.—Changes in meninges, fluid, cortex, ependyma, ganglion cells, nerve fibers, blood vessels.

PARANOIA

Etiology.—Heredity, infantile cerebral disorders, physical and mental degenerative stigmata.

Symptoms.—(a) Prodromal period, "Period of subjective analysis"; morbid tendencies, eccentricities, paresthesias of entire body, tinnitus, etc., lead to introspection and hypochondriac tendencies. Seeks explanation of sensations in himself, then in environment, becomes suspicious, distrustful, develops illusions and hallucinations, particularly auditory. (b) Persecutory period, "Period of delusive explication": delusions of persecution by unknown enemies, "they" attempt to destroy him; later believes some secret or religious order responsible; auditory hallucinations increase, delusions lead to homicidal attempts. (c) Expansive period. "Period of transformation of personality"; delusions of grandeur, result of his attempt to explain cause of persecution, may be religious, political, erotic, etc. Character of delusions lead to paranoia religiosa, p. inventoria, p. reformatoria, p. erotica, p. querulans, etc. Mental condition of paranoiac aside from delusions. Course and duration of each stage.

IDIOCY

Definition.—Idiocy, imbecility and feeble-mindedness.

Classification (Clinico-pathologic).—Hydrocephalic, microcephalic, paralytic, epileptic, traumatic, sensorial, meningitic, myxedematous (cretinism), amaurotic, idiots savants.

Etiology.—(a) Degenerative Causes: Heredity (nervous and mental diseases in parents); pathologic heredity (tuberculosis, alcoholism, syphilis, etc., in parents), consanguinity, etc. (b) Adventitious Causes: (1) Gestational (maternal or fetal); (2) parturitional (difficult labor, instrumental deliveries, prematurity, etc.); (3) postnatal (trauma, cerebral diseases, febrile diseases, etc.).

Diagnosis.—Physical condition, shape and size of head, cranial malformations and asymmetry. Anatomical stigmata, paralysis of limbs, morbid movements, nystagmus, atheosis, etc. Imperfect sensations, perceptions, sensory organs, Diagnosis of form and cause. Diagnosis of degree.

Monthly Meeting

Insanity in This State: (a) as Affecting Responsibility for Crime; (b) as Affecting Civil Rights.
Medical Treatment of the Insane.
Prognosis in the Different Forms of Insanity.

Medicolegal

No Defense Under Law that Deficient Milk Was as Given by Cow

The Second Appellate Division of the Supreme Court of New York holds, in People vs. Bosch, that under a law which provides that the term "adulterated milk" shall mean milk containing more than 88 per cent. of water or fluids, or less than 12 per cent. of milk solids, it was no defense to a prosecution for selling adulterated milk that the milk, as given by the cow, contained too much water.

To similar effect is the decision of the Supreme Court of California in the Hoffman case. Here the city of Los Angeles passed an ordinance establishing the standard of milk at 87.5 per cent. water, by weight, and 12.5 per cent. milk solids, of which latter at least 3.5 per cent. should be butter fat. It was charged that the ordinance was unreasonable and in restraint of trade in exacting too high a standard for the milk permitted to be sold, it being averred "that milk may come direct and pure in its natural state from the cow, and especially from Holstein cows, and yet be below the standard fixed by the city ordinance."

Now it may be, the Supreme Court of California says, that a municipality may pass an ordinance imposing a standard for milk which would be unreasonable, oppressive, in restraint of trade, and therefore void. It may even be, for aught this court can judicially know, that this ordinance is of that character. But the mere averment that milk below standard might come from one or another cow is not sufficient to tender an issue of this character.

Nor is it any objection to the validity of the ordinance that its regulatory provisions and the penalty for its violation differ from those of the state law. If prosecution is had under the state law, a defendant is entitled to the protection which the state law affords him; if under the ordinance, then his rights and duties are governed by that enactment.

Liability Under State Pure Food Law for Damages for Sickness of Consumer

The Supreme Court of Minnesota says, in the case of Meshbesher vs. Channellene Oil & Manufacturing Co., that the defendant sold to a retail grocer a quantity of oil, knowing that the same would be sold at retail to his customers for use in cooking their food. The plaintiff purchased of the grocer a quart of the oil for such purpose which consisted of about 40 per cent. of mineral oil and 60 per cent. of cotton seed oil. It was injurious to health. His food which he ate, was cooked in the oil, and he was thereby made seriously ill. This action was then brought to recover damages for the injuries so sustained. A judgment was rendered for the plaintiff, which is here affirmed.

It may be conceded, for the purpose of this appeal only, that, except for the state pure food laws, or similar statutory provisions, the allegations of the complaint in this case would not state a cause of action against the defendant; but, read in connection with the statute, the court holds that they stated a cause of action, for they showed a neglect to discharge the duty imposed by the state pure food statute and a violation of its prohibitions by the defendant. It was not necessary to plead the statute, as it is a public act. The statute prohibits and punishes as a misdemeanor the manufacture, sale, or offering for sale of any article as food, if it in itself is injurious, or if it contains any ingredient injurious to health. This statute is intended to protect the health of all of the people of the state. Clearly the plaintiff belonged to the class for whose benefit the statute was intended, and this case came within the rule that where a statute for the protection or benefit of individuals prohibits a person from doing an act, or imposes a duty on him, if he disobeys the prohibition or neglects to perform the duty, he is liable to those for whose protection the statute was enacted for damages resulting proximately from such disobedience or neglect. Negligence is implied from a violation of the statute, and the plaintiff's injuries resulted proximately from the defendant's failure to comply with the statute, for it sold the oil to the grocer, knowing that it was to be sold by him to his customers for food purposes

The fact that the trial court did not find that the defendant knew that the oil was impure did not affect the question of its liability; for it was bound to know whether the article, which it sold to be retailed to the customers of the purchaser for food purposes, was sound, wholesome, and complied with the statute. This is a salutary and necessary construction of this pure food statute, which in this respect is analogous to statutes prohibiting the sale of liquor to minors, in construing which courts uniformly hold that an honest belief that the minor was 21 years of age is no defense.

Power of Health Officers and Liability of Counties in Contagious Disease Emergencies

The Supreme Court of Kansas holds, in the case of Hawthorne vs. Board of County Commissioners of Cherokee County, that a health officer appointed by a local board of health, having knowledge of any infectious or contagious disease, is required to immediately exercise and maintain supervision of such case, seeing that it is properly cared for and isolated. The performance of these duties involves expense, and the power to care for such diseased persons implies the authority to contract for medical attendance and nursing in an emergency which requires immediate action.

The county board has authority to examine and settle all accounts chargeable against the county, and to determine whether services which it is claimed were rendered by the order of the health officer were properly performed under his direction, and their reasonable value. It has the general control of the situation and of the expenditures, but in the circumstances disclosed in this case (where it was alleged that the existence of smallpox created an emergency requiring immediate action before a meeting of the board could be held) a previous employment by order of the board itself was not a condition precedent to the liability of the county.

The court says that the provisions of the Kansas statutes designed to enforce the quarantine and to prevent the spread of contagion evince the legislative purpose to protect the health of the people through the prompt and vigorous action of the officers intrusted with these important duties. County commissioners are elected from the several districts of their counties, and some time is usually necessary in order to call and hold a meeting. If it should be held that formal action of the board is necessary in order to establish a quarantine, obtain medical attention, and perform the like duties required by the law in each particular case, the law might, and probably would, prove inadequate to secure the end manifestly intended. The law therefore devolves these administrative duties on the health officer, requiring him to immediately exercise and maintain a supervision over such case or cases, seeing that all such cases are properly cared for and isolated.

If it should be held that the financial inability of the persons under treatment is a condition precedent to the liability of the county for their care, it should also be held that the fact that the proper officer has made an examination and taken the action raises a presumption at least that they were so unable, for public officers are presumed to have properly performed their duties. Suppose, however, a person able to pay should refuse to take the precautions, and observe the requirements of the law, although ordered by proper authority; is the health officer powerless to provide for the quarantine and the care necessary to prevent the spread of contagion? It might be that the persons benefited would be liable to refund to the county or city, as the case might be, the amount so expended. The court does not decide this matter now, for such a case was not presented in this record.

It was said that the court must presume that the county had a poor farm and that in such case relief could not be given elsewhere. The court can not presume however that the county had the necessary conveniences at such farm to isolate smallpox patients. On the other hand it must presume that the county had not or that it was impracticable to use them in the emergency because of the fact that the proper officer provided for quarantine and attendance elsewhere.

The defendant board of county commissioners relied on the opinion in Smith vs. County of Shawnee, 21 Kan., 669, wherein it was held that a county maintaining a poor house was not liable for such services, but that decision was made before the statutes hereinbefore referred to were enacted, and even then it was said in the opinion "that an enlightened liberality, as well as a cautious prudence, would justify the commissioners in making a reasonable appropriation for the services"; the services in that case having been rendered by a physician for a smallpox patient on the request of the township trustee.

As the services in the present case were rendered to a family residing in a township and not in a city, the county board of health had jurisdiction, and the plaintiff's services as nurse were properly chargeable against the county.

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

Medical Record, New York

April 10

1 *The Cammidge Reaction in Diseases of the Pancreas. F. P. Kinnicutt, New York.
2 *Rational Treatment of Tabes Dorsalis in Relation to Its Pathogenesis. T. A. Williams, Washington, D. C.
3 The Three Ureteral Isthmuses. B. Robinson, Chicago.
4 Proper Teaching of Therapeutics in Medical Schools. G. F. Butler, Chicago.
5 Diagnosis and Treatment of Diabetes Mellitus. J. D. Dun- [illegible]
6 *[illegible] G. F. Laidlaw, New York.

1. **The Cammidge Reaction.**—During the past fifteen months Cammidge's pancreatic test has been applied in all cases of suspected pancreatic disease, of cholelithiasis, cholecystitis and diabetes admitted to Kinnicutt's wards in the Presbyterian Hospital. Out of 51 cases 13 gave positive reactions, 38 negative reactions. He summarizes the cases, briefly reviews the literature, and concludes that a review of the studies, to the present date, of the urine, both in clinical and experimental pancreatic disease, indicates that, while the pancreatic reaction is not pathognomonic, it is strongly suggestive of inflammatory and destructive lesions of the pancreas, and is of much assistance in diagnosis in association with other clinical evidence of disease of this organ.

2. **Tabes Dorsalis.**—Williams points out that empirical treatment may succeed in curing disease when the factors are quite simple, and points to quinin in malaria, mercury in secondary syphilis and outdoor life in a good climate in tuberculosis as examples. But patients have been made quite uncomfortable by quinin, while mercury and open-air treatment have failed, respectively, in syphilis and tuberculosis. We now know that these drawbacks and failures were due to lack of understanding of the precise relationship of the remedy to the cause of the disorder. To a similar lack of knowledge must be attributed many failures in the treatment of tabes dorsalis by mercury. Now that the syphilitic origin of tabes has been put beyond doubt, many are inquiring why mercury failed in the past and whether it can not succeed in the future. Williams reviews the pathogenesis of tabes, and concludes that it is to other causes than the nature of the noxa that we must ascribe the failure until now of specific therapy. These causes he believes to be threefold: (1) Faulty methods of administration; (2) hasty generalization; (3) overexpectation. It is only by inserting mercury directly into the body in known quantities that we can commensurately antidote the noxa of syphilis with the minimum of injury to the patient's tissues. It is only by this method that it is fair to judge the specific therapy of tabes and paresis, and recent results have justified hopefulness, for numerous cures are being reported. This does not, of course, mean a restoration of degenerated tissues. The moral is the imperative need of early diagnosis of the sometimes fleeting and obscure neuralgia, vertigo, urinary and gastric difficulties, etc., which so often precede locomotor symptoms of tabes dorsalis. A careful neurologic diagnosis, sometimes including examination of cerebrospinal fluid, would enable us to anticipate many a locomotor ataxia. The Wassermann reaction will enable us to dispense with much neurodiagnostic lore and skill; but the installation for this is very complicated, and therefore not available except in certain large centers; and in any case a certain knowledge of neurologic signs is required before one can even suspect incipient tabes or paresis.

6. **Tuberculosis.**—Laidlaw reviews the history of tuberculosis, and shows that the trend is toward a vitalistic attitude to the use of remedies, which, instead of attempting to do things themselves, stimulate the body tissues to protect themselves by setting the body's own protective apparatus in motion.

New York Medical Journal

April 10

7 The County Medical Society. J. R. Goffe, New York.
8 *Economic Housing of Consumptives, with Special Reference to the Southwest. P. M. Carrington, Fort Stanton, N. M.
9 *Schema for Classification of Patients on Examination. L. D. Fricks, Fort Stanton, N. M.
10 Flatfoot. F. E. Peckham, Providence, R. I.
11 *Intra-Abdominal Injection of Oxygen as Studied in Animals. H. D. Meeker, New York.
12 *Chronic Dilatation and Prolapse of the Stomach. A. E. Benjamin, Minneapolis.
13 Neuroretinitis Due to Typhoid. J. V. Clothier, Philadelphia.
14 Paralytic Conditions of Childhood. C. Rosenbeck, New York.

8. **Economic Housing of Consumptives.**—Carrington points out that the large number of health seekers suffering from tuberculosis who are crowding into the arid climate of the southwest, and particularly into New Mexico and Arizona, is making a great problem in their being cared for. A large proportion of them are indigent, and the burden falls very heavily on the public charges of small towns that are called on to support them. Moreover, the initial difficulty of impressing on the people the communicability of tuberculosis has, not unnaturally, led to a very decided phthisiophobia as a reaction. Carrington, as one who himself sought and gained health in the southwest, has a great sympathy for those poor victims of tuberculosis who come to the southwest

with barely sufficient funds to reach their destination, in the hope of finding light employment which will maintain them until the climate shall effect a cure. He suggests the solution of the problem by means of the tent house, as developed at Fort Stanton Sanatorium, and now being more extensively used in the southwest. He points out to physicians the necessity of being slow in advising such patients as have not means to pay their own expenses, from coming to the southwest until private and public charity shall have had time to provide sanatoria.

9 **Classification of Tuberculous Patients.**—Fricks discusses the various classifications of tuberculosis that have been suggested, including that adopted by the National Association for the Study and Prevention of Tuberculosis, and suggests the following classification:

Incipient:
1 Infiltration limited to one or both apices or a small part of one lobe
(x) a With slight constitutional symptoms, such as malaise, variations of temperature or acceleration of pulse
b Without marked constitutional symptoms, such as gastric and intestinal disturbances, high fever—101 3 F—or rapid loss in weight
c Without tuberculous complications
d Without noticeable impairment of function
e With or without expectoration or tubercle bacilli.
Moderately advanced:
2 Infiltration involving more than the apices or a small part of one lobe up to two lobes
3 Consolidation limited to one or both apices or to a small part of one lobe with or without infiltration up to two half lobes
4 Disseminated fibroid deposits with evidence of active process
f Without cavity formation
(x) g With marked constitutional symptoms
h Without serious tuberculous complications
i Without marked impairment of function
Far advanced
5 Consolidation or infiltration involving more than 2 or 3
6 Extensive fibroid process with evidence of active process
j With or without cavity formation
(x) k With marked constitutional symptom
l With or without serious tuberculous complication
m With or without marked impairment of function

He discusses in detail those items marked (x). His suggestion is based on two years' examination and report of tuberculous patients on their arrival at the U. S. Marine Hospital Sanatorium, Ft Stanton, and a running discussion of the national association's classification by the different medical officers who have been stationed at the sanatorium.

11 **Intra-abdominal Injection of Oxygen.**—Meeker reports a case of tuberculous peritonitis in which Dr. W. S Bainbridge injected oxygen into the abdomen with beneficial results. He records a series of experiments on animals undertaken to determine the value of the procedure and establish it on a scientific basis. He says that a study of experiments on the intra abdominal introduction of oxygen in animals permits of the following conclusions:

1 Oxygen is completely absorbed from within the abdominal cavity
2 Oxygen is a slight respiratory stimulant
3 Oxygen is a slight cardiac stimulant
4 Oxygen has but little effect on blood pressure when the pressure of the gas is moderate
5 Oxygen tends to bring an animal out quickly from deep anesthesia
6 Oxygen hastens the recovery of an animal after discontinuance of anesthetic
7 A pressure of more than 1,800 mm of water may cause collapse
8 Oxygen tends to prevent the formation of adhesions It does so more effectively than any inert gas
9 Oxygen quickly changes a dark blood to scarlet in cases of anoxemia
10 Oxygen stimulates intestinal peristalsis
11 Oxygen is not an irritant to the peritoneum or abdominal viscera

He describes the technic of administration in the human subject, reports five cases in which it was used, and cautions against the tendency to collapse after the oxygen has been absorbed He holds that the animal experiments and the results witnessed in the human subject justify the intra-abdominal use of oxygen in surgical therapy.

12 Abstracted in THE JOURNAL, Jan 16, 1909, p. 236.

Lancet-Clinic, Cincinnati

April 10

15 The Wassermann Diagnostic Test for Syphilis M. L Heidingsfeld, Cincinnati
16 The Fly—An Etiologic Factor in Intestinal Disease A E Osmond Cincinnati
17 The Child—What of Its Future? W. E McKinley, St. Joseph, Mo

Journal Arkansas Medical Society, Little Rock

February

18 Sarcoma of the Kidney C E Bentley, Little Rock
19 Rare Cases in Obstetrics H C Dunavant, Osceola
20 *The Management of Abnormal Labor C. K Caruthers, Pine Bluff
21 Unreliability of Murmurs N S Word, Camden.

20. Abstracted in THE JOURNAL, July 18, 1908, p. 249.

Journal of Biological Chemistry, Baltimore

March

22 *Spontaneous Oxidation of the Sugars A P. Mathews, Chicago
23 Spontaneous Oxidation of Cystein A P Mathews and S. Walker, Chicago
24 Action of Cyanids and Nitrites on the Spontaneous Oxidation of Cystein A P Mathews and S Walker, Chicago
25 Soil Fatigue Caused by Organic Compounds O Schreiner and M X Sullivan, Washington, D C
26 The Preparation of Glyoxylic Acid as a Reagent S R Benedict, New Haven, Conn
27 Critical Hydroxylion Concentrations in Diastatic Hydrolysis. C Quinan, San Francisco, Cal
28 *Studies on Enzymes II The Diastatic Enzyme of Paramecium in Relation to the Killing Concentration of Copper Sulphate A W Peters and O Burres, Champaign, Ill
29 *Bleaching of Flour E T Ladd and H P Bassett

22 **Spontaneous Oxidation of the Sugars.**—Mathews tries to answer the question Why do sugars oxidize more readily in the tissues than outside the body? Levulose oxidizes rapidly in alkaline solution and the other sugars oxidize at about the same speed in alkaline solution and about one-fourth as fast as levulose . The oxidation for sugars, except levulose, is most rapid in a solution of the concentration of about 2 N. sodium hydroxid Stronger alkali reduces the rate of oxidation These experiments show that the main reason for the slow oxidation of glucose in the air is, not lack of active oxygen, but the fact that the molecule of sugar is not activated. The activation is brought about by a preliminary ionization in an alkaline solution It is possible that a similar process may take place in living matter, some substance being present which unites with the glucose molecule and brings about its dissociation This substance may be a specific agent responsible not only for the oxidations, but for all the other more important metabolic activities of protoplasm For such substances Mathews suggests the term metabolases, since they hasten metabolism Under the term oxidases there have hitherto been confused two classes of substances: one which activates the oxygen, such as iron; the other, the more important class, which activates by dissociation of the reducing substances The latter are specific, the former are not

28 **Studies on Enzymes.**—Peters and Burres have studied the action of copper sulphate on paramecium and find that in the very low concentration of one part of hydrated copper sulphate to 20,000 parts of water the salt inhibits the action of diastase and quickly kills the animals They suggest that inasmuch as the concentration necessary to check enzymic action is sufficient to kill the animal, it is probable that mineral poisons which kill in minute doses act by inhibiting the action of enzymes essential to life

29 **Bleaching of Flour.**—Flour is bleached commercially by the action of the fumes of nitrous acid or nitrogen peroxid. Ladd and Bassett have shown that nitrites or nitrates or nitrite reacting or nitrate reacting material are among the products formed in the flour, and that bread baked by the domestic method will contain from one third to one-half the nitrite reacting material found in the flour. The proportion of nitrates in the bread increases as the nitrites decrease, the proportion depending on the method of baking. The bleaching agent acts both on the fat and on the gluten of the flour. The gluten of the flour is less digestible than that of unbleached flour and the baked gluten or bread made from bleached flour shows a similar but smaller difference in digestibility The experiments show that the process of bleaching is essentially different from the natural ageing of the flour.

New York State Journal of Medicine, New York

March

30 *The Modern Hippocrates A Jacobi, New York City
31 Mineral Waters of Saratoga D C Moriarta Saratoga Springs
32 *Improvements in the Technic of the Extraction of Cataract. L Howe, Buffalo, N. Y.

33 *The First Interview with the Patient. W. S. Ely, Rochester.
34 *Intramuscular Injections in the Treatment of Syphilis. V. C. Pedersen, New York.
35 Senile Changes in the Prostate. N. Jacobson, Syracuse.
36 *Problems Relating to Prostatectomy. L. B. Bangs, New York.
37 Clinical Aspect of the Enlarged Prostate, with a Review of 67 Cases. J. N. Vanderveer, Albany.

30. **The Modern Hippocrates.**—After discussing the pathology, anatomy and physiology of Hippocrates, Jacobi deals with his prognostics. That he realized the great importance of prognosis is shown by the following sentence from his works: "It seems to me best for the physician to acquire practice in the production of the termination of a disease, for when he knows before and predicts the present state of his patient, and the past, and the future, also such things as the patient omits in his report on his condition, people will have firm confidence in him and in his superior knowledge and will entrust themselves to him." Jacobi describes the range of the Hippocratic prognosis and points out that the science and knowledge of prognosis differ for the modern clinician from the Hippocratic in the same degree as his nosology. Jacobi gives numerous instances in illustration of this point. He insists on the fact that there is both for prognosis and salvation no end of legitimate hope, "the best stimulant of the nervous and circulatory system." Sixty years ago an American was held up to ridicule for his report on the incision of an accessible brain abscess; to-day the apparently inaccessible large or small tumor or abscess is diagnosticated and removed and the doomed patient is cured.

He caustically discusses the running to seed of modern specialism, and points out that the exaggeration of specialistic tendencies is more extensive among the public than among medical men.

He sums up the modern Hippocrates as follows: "Our modern Hippocrates objects both to the therapeutic pessimism of the uninformed, or the mere naturalist, and to the optimism of the dilettanti who, mostly in the pay of the manufacturers, eulogize the latest synthetic chemical, which benefits the writer and his employer, if not the sick. He is also aware that pharmacology and the clinic have got too far apart from each other."

Of the ideal teacher he says that "he knows how to distinguish functional weaknesses from genuine disease, and recognizes the fact that the latter has stages with adaptable therapeutic indications; that a scientific diagnosis can be made on hills and in hamlets, but not without previous clinical and laboratory teaching, and that for city and country we should know enough and be diligent enough, to do most of our tests ourselves, and not to rely exclusively on the knowledge or honesty of laboratories; that a close study of a moderate number of ordinary cases is best for the instruction of the doctor embryo and not the hustling through wards filled with practically inaccessible material; that the same disease is not the same disease in different seasons, climes, constitutions and ages; that with every advancing decade there are increasing complications of lesions and symptoms, and of diagnosis, simple in the infant or child, which become more difficult from year to year and whose prognosis is more problematical—indeed I do not know whether all our rising pediatric specialists have an idea of how difficult a task it is to become a real all-around doctor. The modern Hippocrates keeps his hands clean like Billroth, and cleaner than the ballroom dandy, and teaches how to do much with very little."

32. Abstracted in The Journal, Feb. 6, 1909, p. 496.

33. Abstracted in The Journal, Feb. 20, 1909, p. 657.

34. Abstracted in The Journal, Feb. 13, 1909, p. 580.

36. Abstracted in The Journal, Feb. 20, 1909, p. 657, and published also in *American Journal of Urology*, March, 1909.

Therapeutic Gazette, Detroit

March

38 Purulent Diseases of the Middle Ear—The Treatment of Meningeal, Sinus, and Labyrinthine Complications. S. M. Smith, Philadelphia.
39 *Untoward Results from Diphtheria Antitoxin, with Special Reference to Its Relation to Asthma. H. F. Gillette, Cuba, N. Y.
40 Treatment of Acute Gonorrhea in the Male. H. M. Christian, Philadelphia.
41 *Treatment of Convulsions in Infancy and Childhood. J. H. McKee, Philadelphia.

39. Abstracted in The Journal, Feb. 13, 1909, p. 580.

41. **Convulsions in Infancy and Childhood.**—McKee enumerates as follows the causes of convulsions in a "chronologic order": (1) Neurotic inheritance; (2) intrauterine affections of the brain or circulatory apparatus; (3) causes operative at birth; (4) causes that operate soon after birth; (5) the most common causes of eclampsia in infancy is rickets; (6) the diarrheal diseases (principally infectious) of the first and second years; (7) meningitis; (8) brain tumors; (9) hydrocephalus; (10) polioencephalitis; (11) poliomyelitis; (12) the infectious diseases of severe type; (13) nephritis; (14) severe hemorrhage; (15) mineral poisons such as lead; (16) alkaloidal and other drugs; (17) embolism and thrombosis; (18) epilepsy. For practical purposes, when we exclude organic affections of the brain, heart, lung or kidney, the underlying state in infantile eclampsia is usually rickets, or nervous heredity. McKee discusses preventive treatment; the instruction of the mother concerning her physical and psychical life during pregnancy, and her protection from emotional storm and mental shock; preventive possibilities of good obstetric knowledge and skill; attention to the hygiene of the baby, with its intelligent medical supervision. Most convulsions should be viewed as wholly preventable occurrences for which parents, caretakers or lack of medical foresight are to blame. McKee knows no more uniformly dependable agent, in treatment of attacks, than chloroform. It is good practice, while the patient is anesthetized, to wash out the bowel with warm normal saline solution, permitting several ounces of the fluid to be retained. In a recent case the injection of a second quart of saline solution in a 17 months' old baby brought forth to McKee's astonished gaze, 8 inches of sewing silk, 82 inches of darning cotton, and hair from the tail of a rocking horse. Washing out the stomach is safer than emetics. These measures should be supplemented with a large dose or broken doses of calomel, followed with a single dose of castor oil or spiced syrup of rhubarb. Bromid and chloral he recommends to prevent recurrences, the latter drug by the rectal route, with sufficient starch to render it unirritating. Other measures mentioned are the coal-tar products, hydrotherapeutic agents, stimulants, bloodletting, oxygen, artificial respiration and massage of the heart, lumbar puncture, and puncture of the lateral ventricle.

Journal of the Missouri State Medical Association, St. Louis

March

42 Endocarditis. J. S. Triplett, Harrisonville.
43 Excision of the Lachrymal Sac [illegible] for Chronic Inflammatory Processes The[illegible] St. Louis.
44 Fissure in Ano. W. H. Coffey, Kansas City.
45 *The Prostate as a Factor in Nervous Disease. J. L. Boehm, St. Louis.
46 The Preparatory and After-Treatment of Surgical Cases. J. N. Barger, Albany.
47 Case of Gumma of External Nose. J. S. Wever, Kansas City.
48 *What Major Operations Should be Attempted in Private Houses. O. Putman, Marceline.
49 The Doctor in Politics; or His Civic Responsibilities. E. G. Beers, Springfield.
50 Optometry, or Practice of Medicine Made Easy. L. Williamson, St. Louis.

45. **The Prostate and Nervous Disease.**—Boehm says that the prostate and its appendages when diseased have a special influence on the nervous system, and are to the neurotic male what the uterus and tubes are to the female and must always be carefully examined in neuroses. Apparently simple disturbances of the prostate may cause serious reflex neurotic conditions because of the complexity of the nervous mechanism surrounding and supplying it. The question of an internal physiologic section and the possibility of the lecithin and organic constituents of prostatic secretion serving as a nutritive factor to nerve metabolism, has not as yet been scientifically determined. Spinal asthenia and cerebral exhaustion are very common, often ascribed to overwork at the office or in literary pursuits, but not always recognized as dependent on a diseased prostate. In cases of sexual crimes and criminal perversion, an intrapelvic and extrapelvic examination of the genitalia of the accused should be made by expert neurologists

at the same time that the expert neurologists examine the mentality. Jurists should recognize the mental condition of the fiend or pervert. who commits sexual crimes as not always due to a hereditary taint, but as commonly the result of some previous urethral disease, uncured at the time. From this chronic diseased condition sexual mania results. There is a medical aspect to the recent lynching and riots because the fiends responsible are diseased and not human monstrosities. Temporary sexual insanity is a reality as much as a deranged mentality caused by typhoid fever or some condition of hyperpyrexia

48. **Operation in Private Houses.**—Putman divides the major operations that can be attempted in private houses into two classes: First, the emergency cases that are the result of direct violence, i. e, high amputations, trephining, gunshot wounds, etc. There is another class of emergency cases that are not the result of direct violence, but call for quick judgment, and, more often, immediate operation. This class contains the greatest number of major operations that physicians are called on to do in private houses. Among these are: (1) Obstruction of bowels; (2) operation for appendicitis during attack; (3) operation for mastoid disease; (4) Cesarean section; (5) ectopic pregnancy; (6) strangulated hernia; (7) tracheotomy. He discusses these as follows·

1 There is little to say concerning ileus, but if the classical symptoms of obstruction are present and repeated high injections of water with the patient in the knee chest position, fail to move the bowels, then the operation should be attempted at once. The high mortality rate following this operation is often due to postponing it until the patient is too weak and the adhesions are too firm to be broken

2 In the operation for appendicitis during the attack, we should be guided by the severity of the attack taking into consideration the number of preceding attacks If it is the first or second attack and the symptoms point toward rupture of the appendix the operation should be done and it will be easier than when the rupture occurs in a case where there have been several attacks before There will not be so many adhesions and they are not likely to be so firm On the other hand, if the appendix ruptures, after a number of previous attacks, the operation could be more safely postponed The adhesions would have walled off the pus from the abdominal cavity

3 Mastoid disease often calls for prompt interference It is a life saving operation and does not demand the strict aseptic surroundings of other major operations It is merely opening an abscess and can be done just as well in a barn as in a hospital, for after reaching the pus, the field of operation will necessarily become infected

4 and 5 Without raising the question of when cesarean section or operation for ectopic pregnancy is demanded, I will only state that both operations can be safely carried out in private houses and are probably done there more often than in the hospital

6 Strangulated hernia demands an early operation to be successful and no time should be consumed in transporting the patient to a distant hospital The patient should be prepared for operation at once, after reduction under chloroform has been tried

7 Tracheotomy is the last named of the emergency operations that should be classed as a major operation When indicated it should be carried out as quickly as the consent of the parents can be gained

American Medicine, New York

March

51 An Appeal for the Sake of Man and of Medicine. G. M. Gould, Ithaca, N Y
52 Leprosy in Norway H L Shively, New York
53 Grippe—Its Etiology and Methods of Transmission W. C. Schoenijahn Brooklyn, N Y
54 Critique of So Called Modified Radical Mastoid Operations S J Kopetsky, New York
55 Electricity in Treatment of Exophthalmic Goiter. A. R. Rainear, Philadelphia
56 Prognosis and Treatment of Laryngeal and Pulmonary Tuberculosis D Robinson, New York
57 Von Pirquet and Moro Tests in the Diagnosis of Tuberculosis F L Christian, Elmira, N Y
58 Principles and Technic of Serodiagnosis of Syphilis G H Fox New York
59 Congenital Pyloric Obstruction M O Magid New York.
60 Primary Tuberculosis of the Conjunctiva E Torok, New York

Journal of Nervous and Mental Disease, Lancaster, Pa.

March

61 *Study of the Axis Cylinders in Five Cases of Glioma Cerebri. C. M Byrnes Charlottesville, Va
62 Blastomycotic Lesions of the Brain E. R. Le Count, Chicago
63 Decompression for Cerebral Thrombosis J. J. Thomas and F. B Lund, Boston

61. **The Axis Cylinders in Glioma Cerebri.**—Byrnes says that it is not infrequently observable in a variety of neuro pathologic conditions—multiple sclerosis, tuberculoma, areas of compression and especially glioma—that the necropsy reveals a much more extensive process than could have been even suspected from a most thorough clinical examination. It is known that gliomata may exist for months, or even years, without causing either general or localizing symptoms of brain tumor. He asks: How are we to explain this persistence of function and absence of degenerative changes where the cerebral tissue is extensively involved? And, how are we to account for the apparently rapid cases which show a pathologic state similar to those existing for months or even years? After reviewing the theories that have been offered in explanation of these facts, he reports a study of five specimens of glioma, to show that in simple cerebral gliomata persistence of function and absence of degenerative changes in the spinal cord may be explained on a definite histologic basis. The summary of this study and the conclusions drawn are as follows:

1 In three of his five cases nerve fibers were found in the substance of gliomatous tissue by both Weigert and Bielschowsky methods

2 Two of the cases showed an entire absence of fibers, or even myelin droplets by the Weigert method, while unmistakable axis cylinders could be seen in the silver preparation made from the same blocks of tissue This is due, no doubt, to the greater vulnerability of the myelin sheath and its early disappearance Thus there is certainly not a very intimate relationship between this sheath and the axis cylinders, and Brodmann maintains that there is no relation between myelinization and the formation of fibrils Consequently, in such cases studied by the Weigert method alone, the absence of fibers in the tumor and the failure to find degenerations in the spinal cord led to the most obvious conclusion, that the fibers had been pushed aside

3 In all five cases a great many more nerve fibers (axis cylinders) were found by the silver method than in the Weigert preparation

4 In the fifth case, the entire pons was involved, and there was no evidence of the pyramidal fasciculi on gross examination yet a section from the tumor substance, treated by the Bielschowsky method showed an enormous number of normal axis cylinders, the anterior pyramids showed no degeneration in either longitudinal or transverse sections, and the Betz cells in the greater part were quite normal Considering, then, the location of this tumor, its long duration, the absence of marked symptoms pointing to upper segment involvement, and the microscopic findings, it seems reasonable to conclude not only that nerve fibers are retained in gliomatous tissue, but that a large number persist as uninterrupted axones, passing through the tumor substance.

Western Medical Review, Omaha

March

64 *The Lower Femoral Epiphysis B. F Lorance, Auburn, Neb.
65 *Acute Dilatation of the Stomach A. I McKinnon, Lincoln, Neb
66 *Plea for More Conservatism in Appendicitis as to Time of Operation with Treatment of Acute Cases O. Grothan, Kearney, Neb
67 *Appendicitis H W Quirk, Crete, Neb.
68 *Management of Placenta Prævia C. Rosewater, Omaha, Neb
69 Traumatic Gangrene H E McCollum and H. L Stevens, Laramie, Wyo.

64, 65, 66, 67. Abstracted in The Journal, July 4, 1908, pp 67 68.

68 **Placenta Prævia.**—Rosewater describes the treatment of placenta prævia as follows:

In placenta prævia centralis use vaginal and cervical tamponade, separate a portion of the placenta and do version slowly, delivering the fetus after the hip has appeared; or go boldly through the center of the placenta and do a version as already outlined, or do a cesarean section particularly if the os will not dilate

In placenta prævia other than central, use vaginal and cervical tampons to control hemorrhage and dilate os, then do bipolar version, or if the vertex presents, simply rupture the membranes and if pains are good leave to nature the balance of the work, if the pains are weak apply forceps and deliver cautiously.

Check postpartum hemorrhage by intrauterine tamponade, ergotin, strychnin and massage of the uterus Sustain and support patient all through progress of the case

Analyzing the question from another standpoint, we have four indications to fulfill (1) To check hemorrhage before or after delivery, (2) to deliver, (3) to prevent shock; (4) to prevent sepsis

1 *To check hemorrhage*—Use vaginal, and when possible, cervical, tampon of aseptic or iodoform gauze before delivery. After delivery check hemorrhage by delivering placenta and packing uterus with aseptic or iodoform gauze and give ergotin and strychnin hypodermically or by mouth

2 *To deliver*—Dilate os by tampon, water bag or manually. Apply forceps if vertex presents and pains are insufficient. Perform version with slow delivery as indicated Do cesarean section when os will not dilate and hemorrhage continues

3 *To prevent sepsis*—Be strictly aseptic in all details of management

4 *To prevent shock*—Stimulate and sustain patient all through labor by light easily digestible food, strychnin, quinin, rectal enemata of normal salt solution or by hypodermoclysis

Journal of the Indiana State Medical Association, Fort Wayne

March

70 *Etiology of Chorea W D Hoskins Indianapolis
71 Tuberculin Therapy W. T S Dodds. Indianapolis.
72 Sketches of the Medical History of Indiana (continued). G W. H Kemper, Muncie
73 *Modern View of the Etiology and Treatment of Acne Vulgaris and Acne Rosacea A M. Cole Indianapolis
74 The Ocular Tuberculin Test. C. G. Beall. Fort Wayne.
75 Tuberculosis of the Kidney. E. Walker, Evansville.

70. Etiology of Chorea.—Hoskins gives a historical review of recent studies into the etiology of chorea, and as a result of these studies considers it to be a safe, logical conclusion that:

1. The causation of chorea is to be found in the action of bacterial poisons on the brain.
2. The available evidence points to the occurrence of a local infection to which these widespread changes in the nervous system are due.
3. The infection is of a rheumatic nature and is due to a specific organism—the *Diplococcus rheumaticus*.

73. Acne Vulgaris and Acne Rosacea.—Cole sums up and emphasizes the points of his paper as follows:

1. Acne vulgaris is usually a pyogenic infection implanted on a skin whose functions are perverted by the influence of age, reflex disturbances, or seborrhea.
2. Acne rosacea is an acne implanted on a chronic hyperemia or rosacea which rises almost invariably from reflex influences from the gastrointestinal tract or pelvis.
3. Internal treatment in both varieties of acne is exceedingly important. Reflex disorders must be sought for and corrected, if possible, before the best results can be obtained.
4. External drug treatment in both diseases is usually disappointing. Sulphur is the best external preparation.
5. Mechanical treatment, such as the use of hot water, soap, massage and the dermal curette is exceedingly valuable.
6. The opsonic method in acne vulgaris is promising.
7. The Roentgen treatment of both acne vulgaris and acne rosacea is the most valuable. In its certainty of cure and infrequency of relapse it almost approaches a specific.
8. The technic of using the *x*-ray, say in acne, is of paramount importance. If the ray is properly applied there should be few, if any, failures and no undesirable effects.

Journal of Advanced Therapeutics, Rahway, N. J.

March

76 Tuberculosis and Its Treatment. J. D. Gibson, Denver, Colo.
77 Gout: Its Treatment by High-Frequency Currents. F. A. Davis, Boston.
78 The X-Ray in Dental Examinations. S. Tousey, New York.
79 Cataphoric Operations as Modified by the Topographic Situation of Particular Neoplasms, with Detailed Report of Cases (continued). G. B. Massey.

April

80 The Physiologic Action and Therapeutic Effect of Vacuum Tube Discharges. J. H. Burch, Syracuse, N. Y.
81 Physiotherapy in the Practice of Medicine. W. McFee, Haverhill, Mass.
82 Catarrhal Deafness and its Treatment. A. C. Geyser, New York.

Vermont Medical Monthly, Burlington

March

83 *The Anatomic Basis for Successful Repair of the Female Pelvic Outlet. I. S. Haynes, New York.
84 An Interesting Case of Gonorrheal Arthritis Treated with Serum. H. E. Plummer, New York.
85 Character of the State Board Examinations and the Competency of the State Medical Examining Boards. W. G. Tucker, Albany.

83. Repair of the Female Pelvic Outlet.—Haynes discusses this subject at great length and with the assistance of many illustrations. Any plastic operation, to be successful, must have a solid anatomic basis. The one fundamental idea, the only rational aim, for the surgeon in all such plastic work, is to restore the damaged parts to their normal state. He reviews in detail the anatomy of the female pelvic outlet, and discusses the function of the structure concerned in it. He next considers lacerations of the pelvic outlet and their effects, and describes the technic of operation.

Pennsylvania Medical Journal, Athens

March

86 *Progress in Pediatrics. T. J. Elterich, Pittsburg.
87 *Malignant Tumors of the Tonsils. G. B. Wood, Philadelphia.
88 *Acute Mastoiditis. S. M. Smith, Philadelphia.
89 *Surgical Complications of Pneumonia, Especially Empyema. A. R. Matheny, Pittsburg.
90 The Public's Gain Through the Nostrum-Suppression Agitation. A. B. Hirsh, Philadelphia.

86. Abstracted in THE JOURNAL, Oct. 3, 1908, p. 1179.

87. Malignant Tumors of the Tonsil.—Wood reports two cases of sarcoma of the tonsil, discusses the operations for their relief, and gives an extensive table of published cases.

88. Abstracted in THE JOURNAL, Oct. 17, 1908, p. 1356.

89. Complications of Pneumonia.—Matheny discusses acute otitis media, pericarditis with effusion, parotiditis, abscess and gangrene of the lung and empyema as surgical complications of pneumonia. In regard to the last-named he especially emphasizes the need of early diagnosis of empyema from delayed resolution. The error is exceedingly common, whereas a hypodermic needle immediately clears up the diagnosis.

Washington Medical Annals

March

91 *The Bryce-Teacher Early Human Ova. A. F. A. King, Washington.
92 Internal Hemostasis: Its Physiologic and Pharmacologic Aspects. W. M. Barton, Washington.
93 Partial Review of Internal Medicine. S. Ruffin, Washington.
94 Review in Pediatrics for 1908. E. P. Copeland, Washington.
95 Case of Peculiar Delirium in Typhoid. F. E. Harrington, Washington.
96 The Value of Therapeutics. P. S. Roy, Washington.

91. Early Human Ova.—King discusses the observations of Bryce and Teacher in their memoir, with numerous figures and colored plates describing two early human ova, the one from a uterine and the other from an ovarian pregnancy. He suggests the extension of this research; for, while the facts of embryology may seem of little practical use, they may on the other hand be regarded as a reserve collection of old keys, one of which may at any moment unlock the door to a treasury of useful information. He suggests, therefore, that it may be well in all cases of delayed menses, even when pregnancy is not suspected, to examine the discharge for young ova, by breaking up the little clots in water and seeking for flakes of decidua with their contained blastocysts. A flake of membrane, no larger than a finger nail, containing an elevated tubercle the size of a pinhead is the thing to look for, as shown in the case of Bryce and Teacher. Should such a specimen be found, it should be immersed in a 30 per cent alcohol solution and sent to a skilled microscopist.

Providence Medical Journal

March

97 Displacement of the Uterus. H. C. Pitts, Providence.
98 Treatment of Uterine Displacements. A. T. Jones, Providence.
99 Blood Transfusion. L. C. Kingman, Providence.
100 *General Purulent Peritonitis. D. Churchill, Providence.
101 Medical Education in Berlin: Advantages Open to American Students. H. G. Palmer, Providence.

100. Purulent Peritonitis.—Churchill reports three cases and discusses the treatment of generalized purulent peritonitis, emphasizing the following points:

1. Operate quickly, making an opening into the abdominal cavity, with the single purpose of letting out the confined septic material. If the exciting cause is easily at hand and can be quickly dealt with remove it; if not, do not seek it.
2. Drain with one drain to the lowest point.
3. Put the patient into the Fowler position, so that the material to be drained shall fall to that lowest point.
4. Give nothing by mouth.
5. Give normal saline solution by rectum by the drop method constantly.
6. Do not give cathartics or enemas.
7. Do not be afraid to keep the patient comfortable and quiet with morphin.
8. Always keep in mind that the one thing you are trying to do in these cases is not an elaborate operation, but to save life.

Detroit Medical Journal

March

102 Diagnosis of Chronic Appendicitis. R. R. Smith, Grand Rapids.
103 Psychotherapy and Its Relations. C. W. Hitchcock, Detroit.
104 Why Benzoate of Soda is Used. E. E. Smith, New York.

Memphis Medical Monthly

March

105 Therapeutic and Diagnostic Use of Tuberculin. L. P. Barbour, Rocky Ford, Colo.
106 A Dermoid Tumor of the Conjunctiva. E. C. Ellett, Memphis.
107 Nervous Diseases Complicating Pregnancy and the Puerperium. S. T. Rucker, Memphis.
108 Tuberculosis Treated at Home. A. E. Cox, Helena, Ark.
109 Social Hygiene. O. Wilson, Paragould, Ark.

Woman's Medical Journal, Toledo, O.

March

110 *Causes Leading to Mental Degeneracy. B. C. Downing, Lexington, Mass.
111 The Incubator Baby. M. A. Nickerson, Rochester, N. Y.
112 Protective Power of the Opsonins. J. K. Qua, Amsterdam, N. Y.

110. Causes of Mental Degeneracy.—Downing compares the race origin in subjects of degeneracy and of insanity, and quotes Hrdlicka to the effect that in mental defectives the relative proportion to the total population is not at all, or but slightly, affected by immigration. On the other hand, in New York State 50 per cent. of the insane are of foreign parentage and 30 per cent. foreign born. The question arises:

What is the proportion of the two populations *not insane?* Downing thinks that we are inclined to exaggerate the causes of insanity if we do not recognize the defective nature of the immigrants, who come here because they are usually defectives and failures at home. Insanity is obviously increasing. In all cities the conditions exist which can cause nervous exhaustion and brain disease, but she points out that no one has ever called attention to the fact that modern cities have produced an environment for which the blonde type of man and some of the lighter brunettes are physically unfit. The large majority in the middle United States of congenital feeble-minded are blondes, while in Poland they are brunettes. The deterioration in the tropics is but a minor degree, and the resulting insanity is the same, melancholia predominating and indicating exhaustion as the cause. Downing calls attention to Woodruff's views on the effect of tropical light on the white man. She discusses heredity, tuberculosis and syphilis, alcohol, the period of birth, early and late marriage, order of birth and birth injuries, bottle feeding, race intermixtures, acute diseases, circulatory conditions and pigmentation in regard to their influence on mental conditions. She also discusses the fevers of feeble minded children based on 1,000 cases, and particularly the condition of the nervous child. Children should be classified in schools by types rather than by age. Training classes should be established to fit physicians for school inspection. The feeble minded should be weeded out into colonies. The education of children should be according to their individual needs; all do not need kindergartens or physical culture or sloyd Where, she asks, is the university that will establish a department for the solution of these problems?

Journal Oklahoma State Medical Association, Guthrie

March

113 Disturbances in Equilibrium of External Ocular Muscles. E F Davis, Oklahoma City
114 Sphenoidal Sinus Diseases J H Barnes, Enid
115 Glaucoma W M Nagle, Muskogee
116 Experiences in Cataract Extraction, Preceded by Iridectomy A D. Johannes, Oklahoma City
117 Diagnosis in Purulent Diseases of the Nasal Sinuses H. C. Todd, Oklahoma City
118 Biliousness I H Voris, Mannsville

Journal of Cutaneous Diseases, New York

March

119 *Tuberculides in Relation to General Tuberculosis A. Ravogli, Cincinnati
120 Eczema of the Toes E W Ruggles, Rochester, N Y
121 *Xanthoma Multiplex J M Winfield, Brooklyn, N Y.

119. **Tuberculides and General Tuberculosis.**—Ravogli concludes, from his consideration of the tuberculides, that typical tuberculides have to be separated from the atypical variety. Typical tuberculides are of the erythematous and papulonecrotic type, generalized, affecting large surfaces of the body. They are the expression of general tuberculosis, but they bear no influence on the general disease.

121. **Xanthoma Multiplex.**—Winfield describes a case of a child of 4 years, born in America of Russian-Jewish parents. He describes the eruption and microscopic examination, and discusses the subject of xanthoma, stating as conclusions, drawn after a careful study of this case in the light of the literature, that xanthoma multiplex is not identical with xanthoma palpebrarum, and that the three types are not similar except in clinical appearances, *i. e*, the saffron-colored tumor. He agrees with the view that xanthoma multiplex is a distinct disease, a benign tumor of non-inflammatory origin.

Wisconsin Medical Journal, Milwaukee

March

122 *Modern Operation for the Cure of Inguinal Hernia. E W. Andrews, Chicago
123 *Carcinoma of the Breast C W. Oviatt, Oshkosh.
124 *Exceptions to the Rules in the Administration of Certain Drugs W. G Kemper, Manitowoc
125 *Some Phases of the Practice of Medicine of To day. W. S. Lincoln, Dodgeville

122. Published in the *Northwestern Lancet*, Jan. 1, 1909.

123, 124, 125. Abstracted in THE JOURNAL, Aug. 8, 1908, p. 524.

American Journal of Obstetrics and Diseases of Women and Children, York, Pa.

April

126 *Hernias Through the Pelvic Floor. C W. Barrett, Chicago.
127 *Amputation of the Uterus in the Corpus to Preserve the Menstrual Function H Kelly, Baltimore.
128 *The Origin of Certain Types of Monsters. C. R. Stockard, New York
129 *Preliminary Report on the Use of Bacterial Vaccines in Treatment of Septic Infections F. R. Oastler, New York.
130 Three Rare Surgical Complications of Pregnancy. J. F. W. Ross Toronto, Canada
131 *Endometritis J J Mundell, Anacostia, D C.
132 Floating Kidney in its Relation to Pelvic Disease. A. H. Ely, New York
133 *Treatment of Movable Kidney. L G. Baldwin, New York
134 Gangrene of a Pedunculated Subserous Uterine Myoma with Twisted Pedicle R T Gillmore, Chicago
135 *Lesions of the Cornea in Gonorrheal Ophthalmia and Phlyctenular Keratitis C W Cutler, New York
136 Importance of Dental Orthopedics in the Normal Development of the Child F A Gough, Brooklyn, N. Y.

126 **Pelvic Hernia.**—Barrett discusses the embryology and comparative anatomy of the pelvic floor, the principles to be considered in the cure of hernia, describes the technic of the repair of the pelvic floor, and lays particular emphasis in the following points·

1 The pelvic floor, while not a direct support to the uterus, is an important factor in abdominal support.
2 Comparative anatomy and clinical research demonstrate the importance of the levator ani muscle in pelvic floor support
3 The pelvic floor support is weakened by the passage through it of certain canals called "faults"
4 The vagina may and oftentimes does become a hernial canal
5 This tendency is greatly increased by traumatism and to a less extent by congenital defects
6 This tendency is further increased by increased abdominal pressure, a displaced uterus, and a vertical vagina.
7 These hernias, when slight and incipient, should be treated by rest, lessening of intra abdominal pressure, by reducing fat, curing a cough, the knee chest positions, tampons, pessaries, etc.
8 When more extensive or when resisting treatment, the pelvic floor should be repaired, the cystocele should be reduced, the vagina made less vertical, and the uterus put at an angle with the vagina or removed according to the condition of the uterus, age of patient etc
9 If hysterectomy is performed the stumps of ligaments should be united to the upper part of the vagina
10 Two points should be observed in the herniotomy of the pelvic floor (a) the levator muscle should be reunited; (b) superficial vulvar structures should not be united, but left with the natural vulvar opening into the vagina, which may easily be accomplished by making the U shaped incision at the lower end of the vagina instead of the usual incision in the labia majora.

127. Abstracted in THE JOURNAL, July 4, 1908, p. 71.

128 **Monsters.**—Stockard discusses the origin of monsters and describes his own experimental study of the influences of strange external conditions on development.

129 **Bacterial Vaccines in Septic Infection.**—Oastler summarizes his article as follows:

1 Apparently favorable clinical results have been obtained in the use of vaccines of streptococcus, staphylococcus, *Bacillus coli communis*, *Bacillus mucosus* and gonococcus
2 All but gonococcus vaccine should be autogenous.
3 Vaccines are not cure alls' but seem to aid materially in combating the septic process the effect being gradual and progressive
4 Vaccines are required especially when the blood shows poor resistance i e, low leucocyte count and high polymorphonuclear.
5 In violent cases of acute sepsis, no resistance can be created, and no effect obtained
6 The negative phase is rarely obtained
7 The positive phase is more often obtained.
8 Blood cultures are generally negative.
9 Wound discharge increases soon after injections
10 Good results have been obtained with all the organisms tried; the least satisfactory were with the *Streptococcus longus*
11 The pulse may remain rapid for some time after the temperature falls
12 As yet there have appeared no ill effects from injections
13 The dose is problematic and purely experimental. The site of the injection is the same, as is also the frequency. Too large a dose does harm, and small doses give better results than large doses
14 Dosage every fourth day Staphylococcus, 160,000,000 to 325,000,000 streptococcus 40,000,000 to 80,000,000; *B coli communis*, 40,000,000 to 150,000,000, *B mucosus*, 40,000,000 to 110,000,000, gonococcus, 6,000,000 to 80,000,000
15 If negative phase appears, delay injection and reduce dosage.
16 The opsonic index is uncertain Leucocyte count with polymorphonuclear count gives the best indication of the resistance of the patient.

131. **Endometritis.**—Mundell says that the classification of endometritis should be acute and chronic. Further subdivision leads to much confusion and does not materially aid the clinician Uncomplicated cases are not very common and an uncomplicated chronic case is a very rare condition Normally, the endometrium is free from bacteria. Treatment of chronic endometritis, to be successful, should always be car-

ried on in conjunction with the treatment of associated conditions.

133. **Movable Kidney.**—*Baldwin's opinion is that* movable kidney has had much laid at its door for want of an accurate diagnosis that should rightly have been charged to other organs and conditions; that operation is seldom the best means of treatment, and that the sooner we place "movable kidney" in the class with "dropsy," "leucorrhea," and, he suggests, "prolapsed ovary," and treat it as a symptom of an often very complex pathologic condition, the sooner shall we come to an understanding of its true significance and its proper cure.

135. **Lesions of the Cornea.**—From a comparative study of gonorrheal ophthalmia and phlyctenular keratitis, Cutler is convinced that more eyes are damaged by phlyctenular keratitis than by gonorrhea. Of course, the injury is not so severe, but an opacity or a facet in the pupillary zone among the children of the poorer classes is so common and is such a serious hindrance to higher economic usefulness, that the attention of the general practitioner and of the public may well be drawn to these fleeting and apparently insignificant eruptions.

Louisville Monthly Journal of Medicine and Surgery

April

137 Systemic Effects of Chronic Infections of the Throat and Nose. F. G. Stubbs, Chicago.
138 Cases of Progressive Pernicious Anemia. J. A. Witherspoon, Nashville, Tenn.
139 Traumatic Cataract in Children. A. P. Pfingst, Louisville.
140 Surgical Diseases of the Kidney. J. G. Sherrill, Louisville.

Military Surgeon, Richmond

April

141 *Sanitary Organization of the Isthmian Canal as it Bears on Antimalarial Work. W. C. Gorgas, U. S. Army.
142 Hygiene of Torpedo Boat Destroyers in the Philippines. F. M. Munson, U. S. Navy.
143 Care of the Chelsea Refugees. P. F. Butler, Boston.
144 Iron Aristol for Chronic Skin Ulcers. M. J. White, U. S. Public Health and Marine-Hospital Service.
145 *Blastomycosis of the Skin in the Philippines. J. M. Phalen and H. J. Nichols, U. S. Army.
146 The Medical Log of the U. S. S. *Virginia* on the Cruise to the Pacific. C. H. T. Lowndes, U. S. Navy.
147 Mosquito Bars. G. F. Campbell, U. S. Army.
148 Cocain: Its Relation to the Military Surgeon. W. D. Owens, U. S. Navy.
149 Plea for Specialism. E. B. Vedder, U. S. Army.
150 Sanitary Service of the Swiss Army. L. C. Duncan, U. S. Army.
151 Color Blindness. W. S. Hoen, U. S. Navy.
152 Origin and Beginnings of the *Military Surgeon*, with Notes on Life and Character of its First Editor. W. G. Ames.

141. **Isthmian Canal.**—Gorgas says that the antimalarial methods used on the isthmus consist (in the order of their importance) in:

1. Destroying the habitat of the *anopheles* during the larval stage within a hundred yards of dwellings.
2. Destroying within the same area all protection for the adult mosquito.
3. Screening all habitations so that the mosquito can not have access.
4. Where breeding places can not be done away with by draining, use is made of crude oil and sulphate of copper for the destruction of larvæ.

He describes the work of the sanitary staff in carrying out these measures and shows its effect on the malaria morbidity of the isthmus. He thinks that to a considerable extent these methods could be applied in military organizations. The most important practical point is that the sanitary officer should do the work himself; until such time as education is extended, the supervision can not be trusted to the engineer or the quartermaster, for in general, the laity are inclined to look on the minutiæ of such work as trivial and to cast ridicule on it.

145. Published in the *Philippine Journal of Science*, November, 1908.

Journal of the Kansas Medical Society, Kansas City

April

153 Operative Displacement of the Bladder in the Treatment of Extensive Cystocele. F. A. Carmichael, Goodland, Kan.
154 Early Diagnosis of Tuberculosis. S. C. Emley, Lawrence, Kan.
155 Doctors and Medicine—Past and Present. J. Dillon, Eureka, Kan.
156 Abnormalities of the Gravid Uterus and Their Treatment. F. A. Harper, Pittsburg, Kan.
157 Gunshot Wounds of the Chest. R. S. Magee, Topeka, Kan.

St. Paul Medical Journal

April

158 *Embryology of the Face and Neck Region, with Reference to Congenital Malformations. A. Schwyzer, St. Paul.
159 *Preparation and After-Care of Surgical Patients. J. C. Munro, Boston.
160 The Ramsey County Medical Society; Its Privileges and Its Duties. A. Sweeney, St. Paul.
161 Diphtheria. T. C. Kelly, Mankato, Minn.

158. **Embryology of Face and Neck.**—Schwyzer describes the embryology of the face and neck and traces its influence in the formation of nasal furrows and clefts, harelip, transverse cleft through the cheek, median cleft of the lower lip and eventually of the lower jaw, the formation of diverticula, fistulas and cysts of the neck and pharynx, etc.

159. **Preparation of Patient.**—Munro prefers patients to enter hospital in the afternoon before operation. They are kept busy, not upset by change of diet and habit, and do not lose their *morale* by introspection. He believes that the patient who is allowed to sit around hospital day after day stands operation poorly compared with one who comes in last thing and takes it in a business-like fashion. A similar parallel may be drawn in the case of those kept in hospital after necessity for definite hospital treatment has ceased. He advises always endeavoring to obtain a general consent to be allowed to use one's own judgment as to what shall be done at operation. The patient is given a hot tub bath, has a simple supper, and is given from 1½ to 2 ounces of castor oil soon after entrance. The operative field is shaved at night or early in the morning, nervous patients being shaved under ether on the operating table. The wet antiseptic dressings have been abandoned except in operations on the head and on the knee joint. The scrubbing with stiff brushes also, soap poultices, etc., have been abandoned. Observation showed that during the period these precautions were being observed more cases healed by first intention and there were fewer stitch abscesses and the like among emergency cases that came covered with the dirt of the street and were hurriedly shaved and superficially cleansed, than among those submitted to this extreme toilet. Munro lauds the use of dry shaving and of tincture of iodin for painting the operation area, as recommended by Grossich. Patients with jaundice are given salt solution and fresh rabbit serum before operation. Cardiac tonics are rarely called for, except in the occasional patient with a myocarditis, when digitalis is used. Strychnin as a stimulant has been given up, except in simple fainting, in which it seems especially useful. Practically all patients are given atropin and morphin when going under ether. A drop of castor oil may be put in each eye as a preventive against ether conjunctivitis, though this should not be necessary with a thoroughly trained anesthetist. Munro holds that the convalescence of major surgical patients depends to a considerable degree on the ability of the anesthetist, especially if ether is used. He anticipates the time when hospitals will have permanent instead of changing anesthetizers—"preferably a well-trained nurse who aspires to no higher position, and who can be utilized out of hours in other important work." He also discusses the after-treatment in detail and the question of disease complications.

Denver Medical Times and Utah Medical Journal

April

162 Management of Labor for Nurses. T. M. Burns, Denver.
163 Advantages of the Intravenous Over the Intramuscular Method in the Treatment of Tuberculosis with Mercury. J. Cuneo, Denver.
164 Origin of Bacteria. J. D. Crisp, Denver.
165 Value of Hourly Nursing to the Physician's Practice. F. E. Scoville, Denver.
166 Historical, Laboratory and Clinical Observations in Rocky-Mountain Spotted Fever. R. Anderson, Salt Lake City.
167 Tick Fever, or Rocky-Mountain Spotted Fever. G. W. States, Franklin, Utah.

St. Louis Medical Review

March

168 *Technic of Localizing Foreign Bodies in the Eye and Orbit by the X-Rays. R. D. Carman, St. Louis.
169 Diagnosis of Affections of the Labyrinth. C. F. Pfingsten, St. Louis.
170 Relationship of Law to Medicine. Gov. C. P. Johnson, Jefferson City.

168. **Localizing Foreign Bodies in the Eye.**—In an elaborately illustrated article, Carman describes Sweet's method for localizing foreign bodies in the eye, as modified by Dr. C. F. Bowen of Columbus and used in connection with the Weeks-Dixon chart. He insists on the importance of radiographing the eye as soon as possible after injury before photophobia has become pronounced.

FOREIGN

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

Lancet, London

March 27

1 *Disinfection and Disinfectants (continued). R. T. Hewlett.
2 *Mechanism Underlying the Various Methods of Artificial Respiration (continued). A. Keith.
3 Tumor-Like Formations of Fat in Man and the Lower Animals. S. G. Shattock.
4 Abnormalities of Ocular Movements. J. H. Jackson and L. Paton.
5 Treatment of Nervous Diseases. J. Taylor.
6 Direct Esophagoscopy: A Unique Experience. H. Tilley.

1. **Disinfection.**—Hewlett discusses the nature of the process of disinfection and the regulation of the sale of disinfectants.

2. **Artificial Respiration.**—Keith deals with the period of mechanical movements of the chest wall, concluding with mention of Doe's method and a discussion of tongue traction. He describes the mechanism underlying Schäfer's method and suggests that experiments on the living subject do not give the conditions present in the apparently drowned who are in a state of profound anesthesia. The resiliency of the thorax differs in degree and in kind from that found in the living body, but while he holds it improbable that Schäfer's method will give a respiratory exchange in the apparently drowned at all equal to that which Schäfer obtained in living subjects, yet a sufficient change may be effected, and the method deserves to be tried because of its simplicity. The quest for the best means of artificial respiration is by no means ended. We need more experimental evidence, more exact as to the results of methods now in general application, more clinical observations on the lungs and hearts of people being resuscitated, and more exact data on the condition of the body, especially of the lungs, heart and liver, in those cases in which all means have failed or secondary failure has occurred. He especially urges those engaged at fixed stations in the work of recovery, to measure accurately by meter the air exchange effected by the methods which they apply; so that, instead of having to trust to experiments carried out on perfectly healthy apneic individuals., we may have the actual effect of these methods in producing a ventilation in the lungs of the apparently drowned.

British Medical Journal, London

March 27

7 Natural History of Ulcerative Colitis and Its Bearing on Treatment. H. P. Hawkins.
8 *Amebic Dysentery with Abscess of the Liver. R. Saundby and J. Miller.
9 *Bilharziosis of Women and Girls in Egypt in the Light of the "Skin-Infection Theory." A. Looss.
10 Physiology of the Female Genital Organs. IV.—Uterine Contractions. W. B. Bell and P. Hick.
11 Local Anesthetics Recommended as Substitutes for Cocain. C. N. Le Brocq.

8. **Amebic Dysentery.**—Saundby and Miller report a fatal case of amebic dysentery that occurred in a man aged 42, who had never been away from the Birmingham district in England. The chief points of interest in the case were:

1. Ulcerative colitis, in which the smaller ulcers are circular and flask-shaped—*bouton de chemise* of French authors—with overhanging edges and relatively small circular openings into the lumen of the bowel, and adherent sloughs; one of the larger ulcers had perforated into the peritoneal cavity.
2. The presence of an enormous abscess in the posterior part of the liver, the pus of which gave no growth on inoculating in ordinary media.
3. Last, and most important, the presence of amebas in the ulcers and the liver abscess and in the tissues around these lesions.

As to the mode of infection, the authors point out that, given a case of tropical dysentery—and such cases are from time to time imported into England—there is a possible source of infection from which contamination of food or drink during warm weather might take place. As the ameba readily dies at temperatures below 75 F., it rarely spreads, even when imported; but that such spread can take place they hold the case in point to demonstrate.

9. **Bilharziosis of Women.**—Looss discusses the paper of Mrs. B. S. Helgood on bilharziosis among women and girls of Egypt, from the viewpoint of the "skin infection theory," and summarizes his conclusions as follows:

1. Any theory about the mode of infection with bilharziosis, in order to be at all acceptable, must (a) account for the passage of the miracidium both from man to water and from water back to man; it must (b) duly consider both the habits of the host and the biologic peculiarities of the parasite.
2. The theory of the infection taking place by the mouth (along with food and drink) must be refuted, because it is irreconcilable (a) with certain biologic peculiarities of the miracidium, (b) with the general distribution of the disease among the population of Egypt.
3. The theory of infection by the miracidium entering the urethra or the anus is (a) utterly improbable for general parasitologic reasons; (b) in contradiction with a number of biologic and anatomopathologic facts (for example, the incapability on the part of the miracidium to resist the action of acids, even if very diluted; the part played in the infection by the liver, etc.).
4. The theory of infection by the skin is in accordance with all the facts thus far known (a) of the biology of the parasite, (b) of the distribution of the disease among the population (native and foreign, town and rural) of Egypt. It shows (c) how the chief sufferers—the children in town, the adult males in the country—live under conditions which, from the epidemiologic point of view, are essentially the same, and give the miracidia (d) the opportunity of passing, within the short time of their life, from man to water and from water back to man.

Medical Press and Circular, London

March 24

12 Tertiary Syphilis in the Upper Air Passages. H. Law.
13 Differential Diagnosis and Inoculation Treatment of Tuberculous Glands in the Neck. L. C. P. Ritchie.
14 Early Diagnosis and Surgical Treatment of Cancer of the Stomach. D'A. Power.
15 Early Diagnosis of Cancer of the Stomach. A. F. Hertz.
16 Medical Examination of School Children. G. Carpenter.

Clinical Journal, London

March 17

17 Pernicious Anemia. W. P. Herringham.
18 Use of Congestion in Treatment: Its Disadvantages in Varicose Veins, Varicocele, Hernia, Hemorrhoids, Hydrocele, Etc. E. M. Corner.
19 Trigeminal Neuralgia and its Treatment by Schlösser's Method. P. Stewart.
20 *Popliteal Aneurism. E. Owen.

March 24

21 Dyspepsia Due to Alcoholic Abuse. Sir D. Duckworth.
22 Athletics in Relation to Disease. R. H. A. Whitelocke.

20. **Popliteal Aneurism.**—Owen reports an exceedingly interesting case of popliteal aneurism, illustrating the moral that popliteal aneurism by no means invariably calls for operation. About 20 years ago a surgeon in general practice, about 65 years of age, strong and athletic, had a recent varicose condition of the external saphena vein. The dilatation was found to be due to pressure by a large popliteal aneurism, of which the patient had no knowledge. His radial and femoral pulses showed considerable arterial tension and his heart's action was excited and tumultuous. He was sent home to bed. Mr. Savory agreed with Owen that operation was inadvisable. They contented themselves, therefore, with raising the foot of the bed to help venous return, laying the limb on a pillow. The only medicine prescribed was calomel. Nevertheless the aneurism increased in size, and amputation in the lower third of the thigh was decided on in case of bursting or mortification; but neither contingency arose, though the foot and leg became cold and pulseless. The aneurism eventually grew still and solid. After the patient had been in bed about ten days, the other popliteal artery became aneurismal. This was treated by a firm pad at the back of the knee, and by keeping the leg firmly flexed. In the course of a few days the second popliteal artery became solid, like the first, and pulsation disappeared in the arteries at the ankle. The patient made a complete recovery, and a few years later Owen saw him running after an omnibus.

British Journal of Children's Diseases, London

March

23 *The Need for More Prompt and Thorough Treatment of Children Suffering from Rheumatism or Chorea. D. B. Lees.
24 Syphilitic Synovitis. J. B. Barrett.
25 Forms of Chronic Lung Disease in Childhood (continued). W. H. M. Telling.

26 *The Heating of Milk as It Affects the Nutrition and Health of the Infant. J. M. Fortescue-Brickdale.
27 Epithelioma Developing in the Scar of a Plastic Operation for Extroversion of the Bladder. P. Sargent.
28 The Origin of the Feeble-Minded. W. A. Potts.

23. Treatment of Rheumatism or Chorea in Children.—Lees says that almost the whole of the heart disease which exists in patients under 30 years of age, as well as a very considerable proportion of the heart disease of later life, is the result of rheumatic infection of childhood that was either unrecognized or uneffectively treated. Every child who complains of sore throat or of pains in the joints, muscles or tendinous structures, every child who suffers from malaise and unexplained pyrexia, every child whose skin shows spots of erythema or who has subcutaneous nodules on his tendons or round his joints, or subperiosteal nodules on his bones, every child who has pain in the chest, or shortness of breath, or marked pallor, and every child exhibiting even slight choreic movements or merely weakness and inco-ordination of muscular action or emotional instability should be at once put to bed, and his heart should be promptly and most carefully examined. Lees cites Poynton and Paine's demonstration of a diplococcus in rheumatism and chorea which is capable of producing in rabbits, not merely endocarditis, but cardiac dilatation, myocarditis, pericarditis, arthritis, pleurisy and pneumonia, also subcutaneous nodules and tenosynovitis; in short, all the severe lesions found in a rheumatic child. He adds two facts within his own knowledge: (1) A rheumatic nodule excised from a child, which gave on culture an exuberant and pure growth of a diplococcus; (2) the obtaining of a diplococcus from the blood in more than one case from rheumatic patients during life. With regard to chorea, lthough it has not yet been proved that chorea in a child is n all cases of rheumatic origin, yet it is quite certain that the great majority of cases are due to a rheumatic infection. Every case of chorea in childhood ought, therefore, to be considered as presumably rheumatic, and ought to have the benefit of this probability. Every such patient ought to be at once sent to bed, and treated vigorously as for rheumatism.

26. The Heating of Milk.—Fortescue-Brickdale deals with the alterations in the physicochemical character of milk produced by heat, not with the effect of heat on bacteria or their products. He divides the alterations into three groups:

1. Obvious taste in change and color, due to action of heat on lactose and the formation of a "skin," from the drying of protein on the surface—these are of little importance.
2. The precipitation of calcium and changes in organic phosphorus compounds. Heated milk is less acted on by pepsin and trypsin and probably less easily absorbed. The physiologic effect of changes in phosphorus is not well known, but since it is needful to the human infant, and cow's milk is poor in organic phosphorus the decomposition of these compounds may be considered a detriment.
3. Changes concerning the "vital" properties of milk. These are the least easily detected of all. Enzymes, agglutinins and precipitins are destroyed and phagocytosis by the milk cells is abolished.

The inhibitory power of fresh milk on bacterial growth is also destroyed. Clinical opinion, especially in Europe, is steadily coming to the view that clean fresh milk is better for infants than heated milk. Anemia, constipation and pyelitis are more frequently met with in children brought up entirely on sterilized milk.

Bristol Medico-Chirurgical Journal

March

29 *Metastatic Inflammations of the Eye. J. H. Parsons.
30 **Causes of Transient Cerebral Paralyses.* G. Parker.
31 *The Physique of Boys. B. M. H. Rogers.
32 *Thomas Dover: Physician and Merchant Adventurer. J. A. Nixon.
33 Vomiting Connected with Anesthesia. A. L. Flemming.
34 Milk from a Public-Health Standpoint—City of Bristol. D. S. Davis.
35 Adulteration of Milk in Bristol. E. Russell.
36 Some Impurities of Vended Milks. I. W. Hall.
37 Value of Some Lactic Acid Ferments. W. Hall and W. A. Smith.
38 Precautions to be Observed in Administration of Milk in Disease. J. M. Clarke.
39 *Heating of Milk as It Affects the Nutrition and Health of the Infant. J. M. Fortescue-Brickdale.

29. Metastatic Inflammations of the Eye.—In the Long Fox Lecture Parsons takes up this subject, by which he means inflammations of the eye due to bacteria or to toxins derived from a source in some other part of the body. He does not include transmission by direct continuity, though in cases in which the meninges of the brain are affected it is not always easy to eliminate this mode. The other paths open are by the lymph and blood streams; the former is rare. He discusses ocular tuberculosis, gonorrheal iritis, iritis due to streptococcic septicemia, in illustration of the selectivity of site in metastatic inflammation of the eye; tubercle affections of the chorioid in two forms, miliary and conglomerate, or solitary. In tuberculous meningitis the chorioidal affection must be regarded as a true metastasis. Conglomerate tubercle of the chorioid is of particular importance in the clinical diagnosis of metastatic endophthalmitis. The pneumococcic cases emphasize another feature of metastatic inflammation of the eye, on which Parsons lays special stress, namely, the strong tendency for endogenous bacterial metastases to undergo spontaneous resolution. Metastatic ophthalmia was far commoner in the days when puerperal fever and pyemia were rife, and was more frequent in the former than in the latter disease. An example of undoubted metastatic inflammation of the eye is found in so-called pseudoglioma. He discusses iridocyclitis, which is undoubtedly often a result of gross metastatic inflammation, and inquires whether the apparent idiopathic cases may not be due to a similar cause. One group is undoubtedly dependent on pyorrhea alveolaris. Other foci are found in the nasal sinuses and, especially in women, in the generative organs. Finally, he thinks that the bacterial metastatic theory best explains the facts in the case of sympathetic ophthalmia.

30. Transient Cerebral Paralyses.—Parker tabulates the causes of transient cerebral paralyses as follows:

A. CEREBRAL ANEMIA OR STASIS

1. General, produced by—(i) compression of the vessels of the neck; (ii) cardiac or respiratory failure; (iii) general vasomotor paresis; (iv) asphyxia by carbon dioxid and similar bodies.
2. Local obstruction or compression of cerebral vessels from—(i) arteriosclerosis or atheroma; (ii) syphilitic thickening; (iii) tumors and foreign bodies; (iv) effused blood and the edema of softening; (v) uremic edema and hydrocephalus; (vi) inflammatory effusions, as in meningitis; (vii) certain small emboli; (viii) possibly spasm in Raynaud's disease and migraine.

B. THE ACTION OF POISONS, EXHAUSTION OF NERVE CENTERS, AND UNKNOWN CAUSES AS SEEN IN:

(1) Narcotic poisoning; (2) hysteria; (3) eclampsia; (4) general paralysis, myasthenia gravis; (5) postepileptic states, some forms of petit mal; (6) chorea paralytica; (7) lead encephalopathy; (8) recurrent paralysis of the third nerve.

31. The Physique of Boys.—Rogers' paper is a comparative study of the heights, weights and chest measurements of boys 13, 14 and 15 years of age in industrial and public schools.

32. Thomas Dover.—Nixon gives an interesting account of the career and adventures of the celebrated inventor of Dover's powder. He particularly protests against the ascription to him of the character of the buccaneer, or pirate, and says that "the expedition on which Thomas Dover sailed was in no sense of a piratical nature; it was one of those adventurous trading cruises of which Hakluyt in his Principal Voyages of the English Nation gives many instances."

39. See Abstract No. 26.

Journal of Tropical Medicine and Hygiene, London

March 15

40 A New Biting Fly. A. Balfour.
41 An Avian Hemoprotozoon. S. Neave.
42 Remarks on Drs. Broden and Rodhain's Paper on "*Porocephalus Moniliformis.*" L. W. Sambon.
43 *Climate (Meteorologic Environment) as a Possible Cause of Pyrexia. M. D. O'Connell.

43. Climate as a Possible Cause of Pyrexia.—O'Connell discusses the manner in which a saturated atmosphere of 45 C. (113 F.) may cause pyrexia, the source and regulation of body temperature in health, the quantity of water in the body and its excretion, the effect of meteorologic environment on the amount of water in the blood and tissues and therefore on body temperature, the relation of meteorologic environment in nature—i. e., climate—and pyrexia, and increased hemolysis from the excessive water in the blood. He holds that the belief is justified, that exposure to the hot, damp atmosphere found at certain seasons of the year in hot, and to a less extent in warm, climates, obviously produces: (1) Pyrexia of an intermittent type; (2) increased hemolysis or blood destruction; (3) the appearance in the blood of many abnormal forms of corpuscles; (4) increased production of pigment or melanemia; (5) enlargement of the spleen.

Annales de Médecine et Chirurgie Infantiles, Paris

March 1, XIII, No. 5, pp. 145-180

44 *Sclerosis in Patches in Children. (Etude de la sclérose en plaques infantile.) M. H. Gaenlinger. Commenced in No. 4.

44. **Sclerosis in Patches in Children.**—Gaenlinger analyzes the eighty-five cases of sclerosis in patches in children that have been recorded and comes to the conclusion that none of them actually merits this diagnosis. He does not assert that sclerosis in patches never occurs in children, but is confident that none of the cases reported to date belongs in this category. Oppenheim suggests that the affection may commence in childhood, but run such an insidious course that its existence is not suspected until adult age. Gaenlinger summarizes the details of all the material on record with full bibliography.

Archives Générales de Chirurgie, Paris

February, III, No. 2, pp. 111-220

45 *Aneurism of the Hepatic Artery. C. Villandre. Commenced in No. 1.
46 *Tumor of the Cerebellum in Children and its Surgical Treatment. (Tumeurs du cervelet chez l'enfant.) Berthaux and Burnier. Commenced in No. 1.
47 *Multiple Osteogenic Exostoses. A. Reubsaet.

45. **Aneurism of the Hepatic Artery.**—Villandre says that in 37 cases of aneurism in the hepatic artery, of which the details are known, the lesion was outside the liver in 34 instances and generally in the main trunk. Pain, hemorrhage in the digestive tract and jaundice are the chief signs of rupture of an aneurism in the hepatic artery. The pain is spontaneous and occurs in crises and paroxysms, ranging from a simple sensation of oppression in the epigastrium to excruciating agony. There is no radiation as with gallstone colic; the pain remains localized in the epigastrium or right hypochondrium. It is the initial symptom and may come on very gradually at first. If it suddenly becomes very intense the aneurism must have ruptured into the peritoneum or bile passages. The jaundice is due to compression of the outlets for the bile or their obstruction by clots. The aneurism gives no external sign of its presence, as a rule, being generally small and deep. The correct diagnosis has been made in only one case to date during life. In the majority of the cases the aneurism developed after some infectious disease, generally pneumonia or typhoid fever. If the hemorrhagic stools are the only symptom, the occurrence of hematemesis, followed by jaundice, suggests the true diagnosis. In some cases on record, the only symptom was chronic jaundice. Seven surgeons have published descriptions of their technic for operating in cases of aneurism of the hepatic artery, but Kehr alone operated on a certain diagnosis. The results of the few operations to date indicate that the hepatic artery can be ligated or obliterated without entailing necrosis of the liver, and Villandre's experiments on dogs confirm this assumption on condition that the liver has been gradually prepared for this shutting off of the circulation by this route and collaterals have had time to develop—this explains the success in Kehr's case. When the circulation in the hepatic artery is shut off abruptly, as by an embolus, necrosis of the liver is almost inevitable as there is no time for collateral circulation to develop. An aneurism in the hepatic artery is dangerous less from its size than from the tendency it displays to invade and dissect adjacent organs, especially the biliary passages. It generally ruptures into the digestive canal and then is presented the triad of pain, hemorrhages and jaundice; the aneurism may rupture into the peritoneum. Prompt surgical intervention is the only means to save the patient, and Villandre outlines the most promising technic for the purpose, summarizing, in conclusion, thirty-six cases from the literature, with the bibliography.

46. **Tumors of the Cerebellum in Children.**—Berthaux and Burnier review the history of operative treatment of tumors in the cerebellum and discuss the etiology and pathology, diagnosis and treatment, especially for cerebellar tumors in children. They have collected fifty-six operative cases of these tumors in children and summarize the details, commencing with one reported by Berthaux. The patient was a boy of 9 with a syphiloma in the left lobe of the cerebellum. The headache diminished under vigorous specific treatment, but the other symptoms persisted and a posterior craniectomy was done, but the removal of the tumor was postponed to a second operation. The child did not rally and succumbed three hours later. In 13 cases of cyst in the cerebellum all but one of the patients recovered after operative removal of the cyst, as also in a case of hydatid cyst. In 17 cases of glioma in the cerebellum in children 5 were cured by the operation, but one of these has developed a recurrence since. In 9 cases of a tubercle in the cerebellum, one of the patients, a youth of 18, was restored to comparative health by removal of an irregular tubercle in the left lobe of the cerebellum; the other patients all died. In 9 of fibroma or sarcoma 2 of the children were cured by removal of the tumor, 7 succumbed during or soon after the intervention. In 4 cases of probable tumors, one of the patients died of hemorrhage, but the others recovered after puncture and draining although no tumor was discovered. In 2 other cases in which the children did not long survive the operation the tumor was not examined after its removal. Out of the entire total of 56 cases there are thus 17 in which the children were cured by the operation. Great improvement was obtained in a few others. In the 13 cases of cysts the operation was done too late to save the eyesight in 5 cases, and these children were and remain blind.

47. **Multiple Exostoses.**—Reubsaet reports a typical case in a young man and compares it with twenty-one similar ones on record. When the exostoses are of tuberculous origin they are inclined to be painful, to undergo phases of inflammation, and sometimes to suppurate. In rachitis, the epiphyses may swell and there may be malformation of various bones, but no true exostoses. Syphilis causes hyperostoses but not exostoses. The hypertrophy of the bone in syphilis is extensive and diffuse, while the typical osteogenic exostoses under discussion are localized and circumscribed. If there is compression of a nerve or interference with the movements of a joint, it may be necessary to apply the knife to some exostosis. P. Marie suggests that thyroid treatment might have some influence during the cartilage stage, before the bone tissue is definitely formed. He has had no success with radiotherapy or serum treatment. In the case reported in detail there was marked eosinophilia.

Bulletin de l'Académie de Médecine, Paris

March 9, LXXIII, No. 10, pp. 295-321

48 *Epidemic of Cerebrospinal Meningitis at Paris. Efficiency of Antimeningococcus Serum. A. Netter and Vaillard.

48. See Paris Letter, THE JOURNAL, April 3, p. 1119.

Presse Médicale, Paris

March 20, No. 23, pp. 203-208

49 History of Medical Inventions. (Leçon d'ouverture. Cours d'histoire de la médecine et de la chirurgie.) A. Chauffard.

Semaine Médicale, Paris

March 17, XXIX, No. 11, pp. 121-132

50 *Hepato-cholangio-duodenostomy. Lejars.
51 *Surgical Treatment of Cerebral Hemorrhage. J. Lhermitte.

March 24, No. 12, pp. 133-144

52 *Pathologic Physiology of Traumatic Pleural Hematoma: Local Hemolytic Icterus. (Biligénie hémolytique locale.) G. Guillain and J. Troisier.

50. ***Hepato-cholangio-duodenostomy.***—The experience with the case reported shows that this operation has a chance for success only when the intercellular passages in the liver are found much dilated. The operation is necessarily rare and

generally a last resort in cases of old and total obliteration of the bile ducts outside of the liver. There is danger of infection of the raw surface of the liver thus united with the intestine. No infection occurred in the operations on animals that have been reported, but the animals were healthy; the conditions are different in the clinical cases in which the patients are debilitated from the long causal trouble. He ascribes the fatal termination of the case in his own experience to this cause—a septic process from the intestine which had not been functioning properly for a long time. His patient was a woman of 55 with occlusion of the hepatic and common bile ducts of long standing, several years after removal of the gall bladder. The common bile duct had become obstructed by an inflammatory gallstone process. Permeability was restored for a time and the general condition rapidly improved, but the duct gradually became obstructed again, and the duodenum was then drawn up and sutured to the right lobe of the liver, the capsule being resected over an area of 4 by 5 cm. and the parenchyma to a depth of 7 or 8 mm. All went well for three days but then the temperature rose a little, jaundice developed and the patient succumbed quietly during the night. The liver had been large for a long time and bile spurted from the mouths of the intercellular passages as they were exposed, but these passages were of normal size and they proved insufficient for the task of diverting the bile into the intestine. Unless these intercellular passages are found dilated at first there is reason to suppose that they will retract and close up more or less and thus annul the benefit derived from the anastomosis with the intestine. In Garré's and Jordan's cases in which this operation was successfully done, these small passages were found much distended and the outcome of the operation was satisfactory. Lejars is convinced that this can not be anticipated when these intercellular passages are found of normal size or unusually small.

51. **Surgical Treatment of Cerebral Hemorrhage.**—Lhermitte reviews the few cases in American and British literature in which acute cerebral compression from intracranial hemorrhage was cured by evacuation of the blood, and discusses the indications. He has no personal experience to relate, but states that the measure is liable to give favorable and encouraging results in the cases which are extremely serious from the start, the patient being in deep coma, with hemiplegia persisting unmodified.

52. **Local Hemolytic Icterus.**—Guillain and Troisier discuss the relations between local destruction of blood and local production of bile pigments, especially in reference to the hemolytic process which results in the production of bilirubin in an aseptic pleural hematoma. In a case of the latter reported in detail a stab wound in the back of the left thorax was followed by a hemorrhagic effusion in the pleural cavity. The fluid withdrawn by six punctures in the course of seven weeks contained hemoglobin and bile pigments while the red corpuscles were seen to be extremely fragile. The conditions were identical in a second similar case, both presenting a local hemolytic icterus limited to the pleural cavity, the seat of the trauma, and independent of any morbid process originating in the liver. The puncture fluid was invariably sterile in both cases, and the symptoms observed, fever, leucocytosis, polynucleosis (78.4 per cent. in the first case three weeks after the injury) and signs of a crisis: polyuria and eosinophilia, about the same date, etc., indicate that extravasated blood corpuscles have an actual toxic action outside of any infection. It is interesting to recall in this connection, he remarks, that subarachnoid hemorrhages are also liable to give rise to aseptic inflammatory reactions, the same as a pleural hematoma. The discussion of the subject also throws light on the process known as hemolytic jaundice.

Beiträge zur klinischen Chirurgie, Tübingen

February, LXI, No. 3, pp. 529-804

53 *Bassini Operation for Hernia and its Contraindications. (Zur Anatomie und Technik der Bassini den Leistenhernien sowie über die selben und über die Hernienoperation Noetzel.
54 Relations between Cicatrix of Laparotomies and Postoperative Hernia. (Beziehungen der Laparotomienarben zu den postoperativen Bauchbrüchen.) Lindenstein.
55 Congenital Curvature of the Spine from Cleavage of Thoracic Vertebræ. (Spina bifida anterior.) F. Oehlecker.
56 Arteriomesenteric Ileus with Acute Dilatation of the Stom- Darmverschluss mit akuter ara.
57 Ca tery. (Fall mesenterialer Bild- er.
58 *Multiple Hydatid Cysts in the Liver. (Zur Kasuistik der multiplen Echinokokken der Leber.) Ehrlich.
59 *Hemophilia and Operative Interventions on Hemophilics. K. Dahlgren.
60 *Idiopathic Dilatation of the Colon and its Surgical Treatment. (Hirschsprung'sche Krankheit; ihre chirurgische Behandlung.) J. E. Schmidt.
61 Retroperitoneal Abscess after Appendicitis. P. Wolff.
62 Operation at Two Sittings for Pressure Diverticulum of the Esophagus. (Die zweizeitige Operation von Pulsionsdivertikeln der Speiseröhre.) E. E. Goldmann.
63 Importance of the Cammidge Reaction for Differential Diagnosis of Pancreatic Affections. W. Hagen.
64 Tumors of the Branchiogenic Organs in Man. (Struma branchialis Getzowa.) O. Mühlhaeuser.
65 Pathogenesis of Subcutaneous Rupture of the Intestines. (Zur Pathogenese der subkutanen Darmrupturen.) K. Borszeky.
66 Treatment of Supracondylar Fracture of the Upper Arm. (Behandlung des suprakondylären Oberarmbruches.) H. Hilgenreiner. Id. H. Coenen.

53. **Inguinal Herniotomy.**—Noetzel discusses the anatomy and technic of the Bassini radical operation for inguinal hernia and its contraindications, and the question of operations for hernia in children. His experience in the clinic and experiments on the cadaver have convinced him that the chief cause of trouble after a herniotomy is that the operator fails to clear the field of all superfluous tissues before starting to suture. There is usually considerable superfluous tissue surrounding an old hernia which is left in the inguinal ring after the hernia proper has been cared for. Anything interposing between the edges to be sutured prevents their proper coaptation. He consequently advocates dividing the cremaster muscle and also the external spermatic artery with its accompanying connective tissue and the transverse anastomoses of this with the accompanying vein. In women the round ligament should be divided and sutured to Poupart's ligament also in the same way, aiming to retain the uterus in its normal position, while the ligament sutured to the muscle below re-enforces it. He does not advise the Bassini technic for infants, preferring a purse-string suture for the hernia and a Czerny suture for the opening.

58. **Multiple Hydatid Cysts in the Liver.**—Ehrlich reports a case of multiple cysts in the liver in a boy of 14 cured by successful surgical intervention on the same principles as for a single cyst. The case is a record-breaker, he says, as none with more than six cysts has been recorded hitherto, although he has compiled from the literature 105 cases of multiple cysts in the liver in which an operation was attempted. The mortality was 30 per cent. He tabulates the details as to the mode of intervention and the outcome.

59. Abstracted in The Journal, Aug. 8, 1908, page 542.

60. **Idiopathic Dilatation of the Colon.**—Schmidt reports a case in a boy between 4 and 5, in which most excellent results were obtained by resection of 56 cm. of the excessively large descending colon. He gives the details further of 71 cases from the literature in which various surgical measures were applied with good results in many instances. Even after fairly extensive resections, approximately normal conditions in respect to the digestion are soon re-established. Out of 58 cases in which some radical operation was done, 73 per cent. of the patients were completely cured, while only 12 per cent. were cured in 59 cases treated by internal measures alone, and 60 per cent. died. Experiments on dogs indicate the feasibility of substituting a segment of the small intestine for the resected portion of the colon, but this will only rarely prove necessary.

Deutsche medizinische Wochenschrift, Berlin

March 18, XXXV, No. 11, pp. 465-512

67 *Puncture of the Brain and Trephining. (Hirnpunktion und Trepanation.) H. Küttner.
68 *Successful Experimental Transmission of Trypanosoma Brucei by Glossina Palpalis. (Positive Infektionsversuche mit Trypanosoma Brucei durch Glossina palpalis.) Kleine.
69 *Specific Treatment of Gonorrheal Processes. C. Bruck.

70 Acute Interstitial Gastritis. (Akute interstitielle Magenentzündung.) Munter.
71 Hemolysis of Streptococci. W. Zangemeister. Commenced in No. 10.
72 *Progress in Irrigation Endoscopy in Chronic Urethritis. (Leistungsfähigkeit der Irrigationsendoskopie bei chronischer Urethritis.) H. Lohnstein. Commenced in No. 10.

67. **Puncture of the Brain and Trephining.**—Küttner remarks that statistics show that the mortality of extradural hematoma is 90 per cent. under conservative treatment, while under operative measures over 67 per cent. of the patients recovered. Brion even cites 84 per cent. recoveries under operative treatment of intradural hematoma, but Küttner thinks this is too favorable to conform to the facts, although he adds that it is remarkable how perfectly traumatic injuries heal even when there are apparently severe complications. The improvement in asepsis and trephining technic has much improved the prognosis of traumatic intracranial hemorrhage, especially from injury of the middle meningeal artery. The hematoma in this case can be localized by a Neisser puncture. The accumulation of blood should be removed by osteoplastic trephining with finger and spoon and rinsing with salt solution. The traumatic abscesses in the brain give the best prognosis under operative measures, especially when the operation follows the route taken by the abscess in its origin and spread. The results of operation for abscess in the brain and infectious sinus thrombosis are among the most gratifying in all surgery. He regards all cases of epilepsy of pronounced Jacksonian type as requiring surgical intervention. He quotes L. Bruns that tumors in the brain can be localized in fully 75 per cent. of all cases. Success depends on rapidity in operating, correct decision as to whether to operate at one or two sittings, refraining from tamponing as much as possible, and complete closure of the external wound. Palliative trephining is particularly effectual with choked disc. The prospects of retaining vision are favorable if the operation is done when the sight first begins to suffer, but there is not much hope if the sight has already been considerably reduced. Intervention should therefore be early, as also with symptoms of compression from chronic hydrocephalus, serous meningitis or swelling of the brain. Neither lumbar puncture nor Neisser puncture of the brain gives any such results as palliative trephining. The permanent results obtained to date justify, he asserts, the highest hopes for the future from surgery of the brain.

68. **Trypanosomes and Glossina Palpalis.**—Kleine reports from German East Africa experiments which confirm Koch's statements that the *Trypanosoma brucei* passes through its phase of sexual development in the *Glossina palpalis.*

69. **Specific Treatment of Gonorrheal Processes.**—Bruck reports from Neisser's clinic at Breslau experiences which show the possibility of vaccination with gonococci to induce active immunity. The method is liable to prove valuable in gonorrheal complications and general affections which frequently prove refractory to the ordinary measures. It seems to be possible to obtain a cutaneous reaction in gonorrheal patients following inoculation of vaccine.

72. **Irrigation Endoscopy in Urethritis.**—Lohnstein reports extensive experiences with Goldschmidt's method of visual inspection of the urethra distended with a fluid. It was described in The Journal, June 8, 1907, page 1992. It gives oversight of the urethra throughout, far surpassing that obtained with any other technic of the kind.

Fortschritte der Medizin, Leipsic

March 10, XXVII, No. 7, pp. 257-304

73 *Fibrosarcoma in Cerebello-pontine Angle. (Zur Klinik des Kleinhirnbruckenwinkeltumors.) C. Velhagen.

73. **Tumor in Cerebello-pontine Angle.**—Velhagen was consulted by a girl of 16, apparently in good health, on account of a slight dimness of vision at times. There had been a little nausea and headache a few weeks before and a few months previously she had consulted a physician on account of not being able to hear quite so well with the right as with the left ear. Velhagen found pronounced choked disc in both eyes and diagnosed a tumor at the base of the brain. For two years the failing vision was the only appreciable symptom, then the hearing became defective on both sides. A year later brain symptoms developed, leading to the fatal termination five years after the first symptoms. Autopsy revealed a fibrosarcoma in the cerebello-pontine angle which shelled out readily and probably could have been easily removed at any time. The long persistence of the eye symptoms alone is important for differentiation of such tumors. Deafness gradually spreading to the other side is also instructive, although the existence of an old perforation of the tympanum may prove misleading, as occurred in the case reported. This gradual involvement of the second ear is accounted for by the anatomic conditions as he explains in detail. Klebs estimates the frequency of these cerebello-pontine tumors as one in every fifty-five brain tumors.

Jahrbuch für Kinderheilkunde, Berlin

March, LXIX, No. 3, pp. 251-374

74 Rachitis. M. Kassowitz.
75 Basophilic Granulation of the Red Corpuscles in Embryonal Blood and in Anemic Conditions in Children. (Die basophile Granulation (Punktierung) der roten Blutkörperchen im embryonalen Blut und bei anämischen Zuständen im Kindesalter.) W. von Starck.
76 Metabolic Research on Breast-fed Child with Special Regard to Ammonia Coefficient. (Ein Stoffwechselversuch an einem Brustkinde mit besonderer Berücksichtigung des Ammoniakkoefficienten.) S. Amberg and W. P. Morril.

Medizinische Klinik, Berlin

March 14, V, No. 11, pp. 381-418

77 *Therapeutic Action of Potassium Bitartrate. (Wirkungen des Tartarus depuratus.) H. Eichhorst.
78 Importance of Vestibular Nystagmus in the Diagnosis of Otitic and Intracranial Affections. Wagener.
79 Traumatic Affections of Acromial Bursa. L. Freund.
80 *Ne[illegible] ion and Compression in [illegible] ermann.
81 Th[illegible] Affections. O. Klauber.
82 Influence of Altitude. (Wirkung des Höhenklimas.) N. Zuntz.

77. **Therapeutic Action of Potassium Bitartrate.**—Eichhorst calls attention to the remarkable efficacy of potassium bitartrate in promoting diuresis. Its influence is only gradually displayed, but it is lasting. He gives it as a routine measure in pleurisy with effusion, but its most striking effect is shown in ascites with cirrhosis of the liver. He reports three severe cases to show the remarkable efficacy of this treatment after failure of other measures. In case of ascites he first excludes tuberculosis, then has the abdomen rubbed with green soap and puts the patient on a light diet with three pints of milk a day and orders:

℞.	gm. or c.c.		
Decocti radicis altheæ, 10:	180		℥xii
Potassii bitartratis	15	or	ʒss
Syrupi simplicis	20		℥v

The dose is 15 c.c every two hours, thoroughly shaking the bottle each time. This medication was kept up for four months in one of the cases described and with great benefit. The patients with advanced cirrhosis of the liver lose the ascites, get a good color and appetite, with normal bowel functioning, and gain in strength so that they feel well and hearty. Eichhorst's experience with operative treatment of these cases and with other drugs has been disappointing. Sakaki in Japan uses the bitartrate in much higher dosage. The benefit with Eichhorst's dosage comes on so gradually that one must not be discouraged at first; after a few days the action of the drug is abundantly evident.

80. **Medico-mechanical Apparatus.**—Herrmann gives fourteen illustrations of his application of new principles for medico-mechanical apparatus that can be made and used at home. The first system is a combination of a long lever with a long elastic band as he shows in three illustrations. It is especially useful for active exercise of the elbow, shoulder, hip and knee joints, while reclining. The second principle is a footstool or seat on a cradle rocking base. The foot is placed on a cradle shaped stool which exercises the joints of the ankle and knee in a most surprising manner as it rocks, and sitting or reclining on the rocking seat permits a remarkable variety of exercises of the trunk. The third system

holds the hands and fingers firm while the forearm can be exercised. The fourth is an exercise for the ankle, the foot resting on small balls running in a groove in a long frame. Other devices permit adjustable extension with weights for sciatica. Even more effectual is his method of applying gentle constant compression by means of a row of inelastic straps with buckles, with or without an interposed rubber sponge. He calls this the "comb bandage"; its special advantage is the adjustability of the separate straps. He uses twelve for the leg in phlebitis and three wider ones for the abdomen. The straps can be applied over the underclothes. For hemorrhoids he introduces a sponge into the rectum, leaving it in place up to twenty-four hours. He insists that the efficacy of this "partial stasis" far surpasses that of massage.

Monatsschrift für Geburtshülfe und Gynäkologie, Berlin

March, XXIX, No. 3, pp. 265-404

83 *Treatment of Placenta Prævia. (Zur Diskussion über die neueren Vorschläge von Krönig und Sellheim.) J. Pfannenstiel. Id. J. Thies.
84 Case of Vaginal Ovariotomy during Childbirth. (Vaginale Ovariotomie während der Geburt.) W. Rühl.
85 Delivery with Contracted Pelvis. (Geburten bei engem Becken.) W. Konopka.
86 *Treatment of Rupture of Uterus. (Zur Behandlung der Uterusruptur im Anschluss an sechs eigene Fälle.) G. Petren.
87 Anatomy and Clinical Importance of Chorioma of the Placenta. E. Eicke.
88 Treatment of Myoma. K. Torkel.
89 *Recurring Tubal Pregnancy. (Wiederholte Tubargravidität.) E. Puppel.

83. *Treatment of Placenta Prævia.—Pfannenstiel declares* that the use of the metreurynter should be taught during the medical course so that all physicians may be able to apply this technic in urgent cases, especially with placenta prævia. The inflatable bag is best introduced, he says, through the speculum after the cervix has been drawn down for the purpose. Special forceps are required of suitable length, curved to fit the pelvis, and smooth on the inner side. An attempt should be made to rupture the fetal membranes and introduce the bag into the ovum. If this proves impossible, the bag may be left below the ovum in the cavity of the uterus without fear of undue separation of the placenta, only the amniotic sac must be ruptured. The fetal membranes are best opened with the forceps carrying the inflatable bag. If this fails, dressing forceps will answer the purpose, the hole being enlarged with the fingers and the bag then introduced. As a general thing it is sufficient to fill the inflatable bag with 500 c.c. of sterile salt solution and hang a weight of 2.2 pounds to it. The bag should not be removed later to allow version or other measures to promote delivery; when the metreurynter is in place it should be left undisturbed until the os enlarges so that the bag is spontaneously expelled. When this occurs the os is then so dilated that the delivery can be terminated at once, possibly requiring internal version and extraction. Thies discusses Cesarean section for placenta prævia, remarking in conclusion that the mortality of the mothers with placenta prævia has already been reduced to 3 or 5 per cent. without Cesarean section and that of the viable children to 10 or 20 per cent. He advocates restricting combined version to extremely urgent cases, those with excessive loss of blood, or hemorrhage during the early part of pregnancy—this broadens still further the field of the metreurynter. Even the most serious hemorrhage can be arrested, he says, by introducing the inflatable bag and pulling lightly on it. The results are less constantly favorable in primiparæ and in women with rigid cervix; vaginal Cesarean section promises well in these cases. It is simple and harmless when the placenta is located on the posterior wall of the uterus. If located on the anterior wall the anterior hysterotomy is best done after a metreurynter has been introduced and the uterus pulled down, making the incision over the inflatable bag and then waiting for its expulsion before terminating the childbirth.

86. **Treatment of Rupture of the Uterus.**—In two of Petren's six cases the rupture followed obstetric maneuvers, but in the others it occurred spontaneously after from ten to thirty-two hours of vigorous labor. There was no sign of the impending rupture in any case except that the contraction ring was almost half way up to the umbilicus in one case over three hours before the rupture finally occurred. This was disregarded, however, as there were no other signs such as taut round ligaments, the persisting character of the labor pains and restlessness on the part of the patient, consequently no attempt was made to perforate and deliver the woman at once. In three instances the rupture was not diagnosed for several hours; in the others collapse or anemia attracted attention to the rupture almost immediately. In three cases labor ceased at once after the rupture; in one case the uterine contractions continued with regular intervals for at least fifteen minutes after the rupture. This is not unusual when the rupture—as in this case—is located in the upper extremity of the vagina. The child escaped into the abdominal cavity in most of his cases and was delivered by a laparotomy as soon as the condition was diagnosed. Oversight of the literature on rupture of the uterus seems to show, he says, that conservative treatment gives better results than operative, but this is a deceptive conclusion as it is invalidated by the prevailing tendency to report only the successful cases.

89. **Recurring Tubal Pregnancy.**—Puppel has encountered two cases of recurring tubal pregnancy. In order to prevent such an occurrence he advocates removing the other tube if it is involved in adhesions or if there is a large hematocele or if drainage of the small pelvis is necessary. The other tube should always be examined, and the abdominal route is *preferable on this account.*

Münchener medizinische Wochenschrift

March 16, LVI, No. 11, pp. 545-592

90 *Paroxysmal Hemoglobinuria and Hemolysis in the Test Tube. E. Moro and S. Noda.
91 *Influence of Alcohol on Starving Organism. (Einfluss des Alkohols auf den hungernden Organismus.) M. Kochmann.
92 Serodiagnosis of Syphilis. J. K. Beckers.
93 Acute Dilatation of Heart from Overexertion. (Akute Dilatation des Herzens durch Ueberanstrengung.) L. Raab.
94 Hitherto Undescribed Variety of Amenorrhea and its Operative Treatment. A. Rieck.
95 Apparatus for Graphic Registra (Apparat zur graphischen Stursberg.
96 Nature of Alternating Heart Rhythm. (Wesen des Herzalternans.) G. Galli. Id. H. E. Hering.
97 Roentgen Examination of Gastric Motor Functioning. (Die *peristolische Funktion des Magens im Röntgenbilde.)* F. Groedel.

90. **Paroxysmal Hemoglobinuria.**—Moro and Noda relate experimental and clinical experiences which confirm in every respect the assumption that the amboceptor in these cases is bound to the erythrocytes only when unheated. When they are warmed the amboceptor is liberated. The temperature tests give classical examples for the clinical relationship between toxic injuries and injuries from chilling—a relationship of which we are constantly encountering evidences in our daily practice. The changes in the blood during the hemoglobinuria paroxysms resembled in every respect those observed in most infections.

91. **Influence of *Alcohol on the Starving* Organism.**—Kochmann's experiments on rabbits showed that large amounts of alcohol hastened the death of the animals, while small amounts postponed the fatal termination. He thinks that these results throw light on the benefit from small amounts of alcohol during febrile affections, etc., in which the intake of food must be reduced, while large doses have a directly injurious action.

Wiener klinische Wochenschrift, *Vienna*

March 18, XXII, No. 11, pp. 363-400

98 *Nature of Anaphylaxis. (Experimentelle Studien über Anaphylaxis.) A. Biedl and R. Kraus.
99 *Transplantation of Thyroid. (Zur Frage der Schilddrüsentransplantation.) H. Salzer.
100 Nature of Syphilis. (Ueber das Wesen der luetischen Erkrankung auf Grund der neueren Forschungen.) *E. Weil* and H. Braun.
101 Differential Diagnosis of Appendicitis, Nervous Pseudoappendicitis and Diseases of the Ovaries and Fallopian Tubes. P. Profanter.

98. **Nature of Anaphylaxis.**—Biedl and Kraus report the details of experimental research which has shown *that the so-*called anaphylactic reaction is characterized by a symptom

complex consisting of vasodilation and its consequences, from peripheral paralysis of the vessels, reduction of the coagulating power of the blood and changes in the morphologic blood picture. It is further distinguished by the fact that it can be induced once and only once within a certain period of time. They further call attention to the fact that this syndrome is identical in every respect with the well known action of the peptone produced by artificial digestion of albumin; most of the experiments recorded were made with the commercial Witte peptone. The syndrome induced in dogs by injection of this peptone is identical, to the smallest details, with the reaction known as anaphylaxis. It seems evident that the anaphylactic intoxication is induced by some poison, which may be regarded as identical with Witte's peptone.

99. **Transplantation of Thyroid.**—Salzer has been experimenting on rabbits, the results encouraging further attempts to supply the missing function by implantation of thyroid tissue. The best results will certainly be obtained with repeated implantation of small scraps, and for this it is better to implant the scraps in the subcutaneous tissue (Cristiani) or in the peritoneal tissue (von Eiselsberg).

Zentralblatt fur Chirurgie, Leipsic

March 13, XXXVI, No 11, pp 369-408

102 *Ether Anesthesia by Rectum (Zur rektalen Aethernarkose) E W. Baum
103 Transperitoneal Incision of Bladder. (Zur transperitonealen Eröffnung der Blase) L R. v. R. Rydygier.
104 Device for Supporting Pelvis in Operations (Eine neue Beckenstutze) Langemak.
105 Modification of Dahlgren's Forceps (Zur Modifikation der Dahlgren'schen Zange) M Borchardt

102. **Ether Anesthesia by the Rectum.**—Baum was encouraged by the favorable experience of Dumont, summarized in The Journal, Feb. 6, 1909, page 515, to give ether by way of the rectum. He followed Dumont's technic in eight cases. The results were apparently ideal in the first few cases, but then occurred two fatalities which opened his eyes to the immense danger of attempting to anesthetize a patient by this route In these two cases the intestines had been so injured by the action of the ether that profuse hemorrhage (680 c.c. within forty eight hours) followed in one case, and in the other the cecum became gangrenous and perforated Besides these two fatal cases the autopsy in another case in which the anesthesia had been apparently ideal showed that the large intestine was spasmodically contracted and covered with numerous ulcerations, partly healed. The patient had succumbed to the heart complications of cancer of the breast. He believes that if any of the other patients had happened to die not long after the anesthesia similar lesions in the intestines would have been discovered He attended to the rectal anesthesia himself and is confident that no fluid ether got into the rectum He warns that rectal anesthesia—at least in its present form—is altogether too dangerous for ordinary use

Zentralblatt fur Gynakologie, Leipsic

March 13, XXXIII, No 11, pp 377-408

106 Injurious Influence of Scopolamin on Pulse and Temperature. (Ueber den angeblichen nachteiligen Einfluss des Skopolamins auf Puls und Temperatur) H Sieber
107 *Ventrofixation of Vagina in Absence of Uterus (Ventrifixur bei fehlendem Uterus) M Gerschun
108 Date of First and Last Menses in Jewish and other Russian Women (Menarche und Menopause bei Jüdinnen und Russinnen in Sudrussland) S Weissenberg

107 **Treatment of Uterine Prolapse**—Gerschun declares that total removal of the uterus is not the best treatment for prolapse, as prolapse of the walls of the vagina is liable to follow This has occurred in two cases on record, and he reports a third requiring ventrofixation long after hysterectomy.

Gazzetta degli Ospedali e delle Cliniche, Milan

February 23, XXX, No 23, pp 241-248

109 Advantages of Local Anesthesia in Extirpation of Goiter (Osservazioni sull estirpazione del gozzo) E Truffi

February 25, No 24, pp 249-256

110 Hysterical Hematemesis G Pomarico

February 28, No 25 pp 257-272

111 Complement Fixation in Diagnosis of Anthrax (Studi sul carbonchio) A Paccanaro

March 4, No 27, pp 281-288

113 Pathogenesis of Arteriosclerosis and Atheromasia. S Lavagna

March 7, No 28, pp 289-304

114 Therapeutic Value of Scarlet Red (Scharlachrot) Sprecher.

March 14, No 31, pp 321-336

115 *Autocholecystectomy (Colecistectomia per via naturale colica?) E Leonardi

115 **Autocholecystectomy.**—*Leonardi gives an* illustration of a bunch of tissue passed through the rectum by a man of 57 who had suffered for a few years from pains suggesting cholelithiasis He took a course of mineral waters and not long after passed the specimen described. It proved to be the inflamed and ruptured gall bladder. Leonardi thinks that the gall bladder must have sunk down into the adjoining loop of intestine, causing invagination, and final segregation and expulsion of the gall bladder as a foreign body.

Riforma Medica, Naples

March 15, XXV, No 11, pp. 281-308

116 *Action of Extract of Tuberculous Lymph Glands on Course of Experimental Tuberculosis (Dell'azione che gli estratti di tessuto linfatico tubercolare esercitano sulla evoluzione della tubercolosi sperimentale.) S Livierato

116. **Extract of Tuberculous Lymphatics in Experimental Tuberculosis.**—Livierato found that injection of an extract of tuberculous lymph glands had a notable effect in attenuating the tuberculous process in guinea-pigs injected with it.

Hospitalstidende, Copenhagen

February 17, LII, No 7, pp 177-224

117 *Specific Action of Serum in Anaphylaxis and Possibility of Utilizing it to Distinguish Between Human and Animal Origin of Blood Stains (Om Serumanafylaxiens Specificitet og om Muligheden af at anvende denne i den medikoforensiske Praxis til Afskillelse mellem Menneske- og Dyreblod i Blodpletter, etc) O Thomsen

March 3, No 9, pp 249-296

118 *Vaccine Therapy of Staphylococcus Affections V. Jensen
119 *Value of Preventive Injections of Diphtheria Antitoxin. (Om en Difteriepidemi paa Middlefart Sindsygeanstalt) A T Jacobsen

March 10, No 10, pp 297-320

120 Sickness among Printers and Typesetters at Copenhagen (Sygeligheden hos de mandlige Arbejdere i de københavnske Bogtrykkerier) H Bille-Top
121 Importance of Serodiagnosis of Syphilis from Standpoint of Treatment (Betydningen af Wassermanns Reaktion for Behandlingen af Syfilis) H Boas

March 17, No 11, pp 321-360

122 Connection between the Number of White Corpuscles and Variations in the Pulse Pressure (Om Sammenhaeng mellem Antal af hvide Blodlegemer og Variationer i Pulstryk) S A Heyerdahl
123 Radical Operation for Femoral Hernia O V Lassen

117 **Forensic Tests of Blood Stains with Anaphylactic Serum.**—In this communication *from the state serum institute*, Thomsen relates extensive experiments which confirm the possibility of utilizing the "quantitative specificity" of the serum of animals in which anaphylaxis has been induced as a means to determine the human or animal origin of blood spots The technic is comparatively simple, as guinea-pigs can be easily rendered anaphylactic to the homologous serum by means of an aqueous extract of the blood spot in question. The technic he found best adapted for the purpose is described in detail and also the tests made with blood from six different species of animals or fowls and with human blood, the specific findings with each confirming the reliability of the test.

118 **Vaccine Treatment of Staphylococcus Affections.**—Jensen has applied *Wright's method* of vaccine treatment in twenty cases, as he relates with particulars, the results encouraging the further use of this method of treatment, especially for recurring furuncles, etc

119. **Preventive Injections of Diphtheria Antitoxin.**—Jacobsen states that only 18 patients developed diphtheria among the 818 inmates of an insane asylum treated with preventive injections of antitoxin to arrest an epidemic of diphtheria in the asylum In the 18 cases in which diphtheria developed notwithstanding the injections the disease had an unusually mild course In one case the symptoms appeared two days after the injection, showing that the infection must have been

already under way; in the others the first symptoms appeared between the eleventh and thirty-seventh day afterward. Maag has reported 3 cases developing after preventive injection of 423 patients. All agree that to abort an epidemic, isolation of the sick is necessary until they are free from bacilli. He adds in conclusion that the cannulas used to make the injections sometimes become clogged with coagulated serum as they are boiled. This can be prevented by placing the cannulas in a solution of pepsin after using; this will eat out the serum in the interior. He also describes a simple box method of disinfecting the letters sent out by the sick.

Norsk Magazin for Lægevidenskaben, Christiania

March, LXX, No. 3, pp. 169-296

124 Low Bronchoscopy for Removal of Foreign Bodies in the Lungs. (Fremmedlegeme i lungen. Bronchoscopia inferior. Fjernelse af fremmedlegemet, helbredelse.) V. Uchermann.
125 The Art of Embalming, Past and Present. (Om fortids og nutids balsameringskunst.) H. Hopstock.
126 *Tumors in the Nerves and Multiple Neurofibromatosis. (Neurofibromatose.) F. Harbitz. Commenced in No. 2.
127 Fifty-four Cases of Acute Appendicitis. J. Roll.
128 *Opsonic Index in Tuberculosis. S. Widerøe.

126. **General Neurofibromatosis.**—In this second installment of his monograph Harbitz gives 21 photographs of several cases of multiple neurofibromatosis, his experience including 15 patients with this affection. The 11 cases described in detail represent the various types of von Recklinghausen's syndrome. In one case of congenital elephantiasis the affection had occurred in five generations, affecting 6 female and 3 male members of the family. The legs alone were involved in the present case. The nerves were unmistakably the source of the elephantiasis, as was shown by the postmortem microscopic examination, in addition to the multiple neuromas and pigment spots found scattered over the body and the pronounced inherited taint. There is no doubt that this is merely one form of general neurofibromatosis. The article is to be continued.

128. **Opsonic Index in Tuberculosis.**—Widerøe found that the opsonic index in 50 tuberculous patients ranged from 0.51 to 1.30, averaging 1.01, while in 50 non-tuberculous the range was from 0.46 to 1.44, the average 0.92.

Ugeskrift for Læger, Copenhagen

March 4, LXXI, No. 9, pp. 219-246

129 *Nature and Treatment of Paralytic Dementia. (Nyere Bidrag til Spørgsmaalet om Dementia pareticas Natur og Behandling.) F. Hallager. Commenced in No. 7.

129. **Nature and Treatment of Paralytic Dementia.**—Hallager expresses surprise that more attention has not been paid to the theory advanced by W. Ford Robertson, on the ground of bacteriologic and clinical evidence, that general paralysis is the result of chronic toxic infection dependent especially on the abundant growth of a diphtheroid bacillus or other germ which gives the disease its special paralytic character. It is evident that the majority of paralytics have or have had syphilis. But the paralysis can not be regarded as the direct consequence of the syphilitic infection. The syphilis is merely one agent that contributes to the weakening of the natural immunity by impairing the general and local defensive mechanisms. Hallager says that there are no theoretic objections to accepting Robertson's *Bacillus paralyticans* as the direct causal agent. But the question can not be decided until Robertson's results have been confirmed by others. His success with the vaccine and antiserum made from the patient's own bacteria are so striking that they deserve wide attention. Hallager comments on the striking similarity between sleeping sickness and general paralysis. Both come on with weakness, ataxia, epileptiform attacks and spastic contractures; in both diseases there is a striking lymphocytosis in the cerebrospinal fluid and autopsy shows a diffuse inflammatory process in the brain. Robertson's experiments with mice and rats have resulted in the production of an affection which both clinically and in its pathologic and anatomic aspects resembles very closely paralytic dementia in man. Hallager is now cooperating with Madsen to apply this vaccine treatment according to Robertson on an extensive scale, the state serum institute and insane asylum at Aarhus working together. The pathologic changes will probably be found irreparable, but the symptoms due to the direct action of toxins may be arrested by the antitoxin. It is even possible, he adds, that a similar antitoxin may be made for alcoholics, which will counteract or neutralize the toxic action of the alcohol.

Books Received

All books received are acknowledged in this column and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. A selection will be made for review in the interests of our readers and as space permits.

The Psychology of Dementia Praecox. By Dr. C. G. Jung, Privat-Docent in Psychiatry, University of Zurich. Authorized Translation with Introduction by Frederick Peterson, M.D., Professor of Psychiatry, Columbia University, New York, and A. A. Brill, Ph.B., M.D., Assistant in Psychiatry, Columbia University, New York. Paper. Pp. 153. Price, $2. New York: The Journal of Nervous and Mental Diseases Publishing Co., 1909.

Rudiments of Latin. With Special Reference to the Nomenclature of the U. S. Pharmacopeia, the National Formulary and the Text-Books in Materia Medica and Botany. Including also Prescription Writing and Notes on the Nomenclature of the *German Pharmacopœia. By Julius Williams Sturmer,* Ph.G., Professor of Pharmacy, Purdue University, Lafayette, Ind. Cloth. Pp. 92. Price, $1. Published by the author.

Text-Book of Embryology. By Frederick Randolph Bailey, A.M., M.D., *Adjunct Professor of Histology and Embryology,* College of Physicians and Surgeons (Med. Dept. Columbia Univ.) and Adam Marion Miller, A.M., Instructor in Histology and Embryology, College of Physicians and Surgeons (Med. Dept. Columbia Univ.). Cloth. Pp. 672, *with illustrations. Price,* $4.50. New York: William Wood & Co., 1909.

Diseases of the Pharynx and Larynx. By Dr. E. J. Moure, Surgeon in Charge of the Nose, Ear and Throat Department of the *Faculty of Medicine, Bordeaux. Translated and Adapted by* J. Malcolm Farquharson, M.B., F.R.C.P., Lecturer on Diseases of the Nose, Ear and Throat in the School of Medicine of the Royal College, Edinburgh. Cloth. Pp. 403, with illustrations. Price, $4. New York: Rebman Co., 1909.

Proceedings of the American Pharmaceutical Association at the Fifty-sixth Annual Meeting, Hot Springs, Ark., September, 1908. Also the Constitution, By-Laws and Roll of Members. Cloth. Pp. 1203. Baltimore: Published by the American Pharmaceutical Association, 1908.

A Manual of Practical X-Ray Work. By David Arthur, M.D., D. P. H., Medical Officer in Charge of X-Ray Department, West *London Hospital, and John Muir,* M.B., Ch.B., and B.Sc. (Pub. Health.) Cloth. Pp. 244, with illustrations. Price, $2.50. New York: Rebman Co., 1909.

Medico-Chirurgical Transactions. Published by the Royal Medical and Chirurgical Society of London. Volume the Ninetieth and Last. (Series 2, Vol. LXXII.) Session 1906-7. Cloth. Pp. 721. London: Longmans, Green & Co., Paternoster Row, 1907.

Special Hospitals—Their Origin, Development and Relationship to Medical Education, Their Economic Aspects and Relative Freedom from Abuse. By Richard Kershaw. Paper. Pp. 72. London: Geo. Pulman & Sons, Ltd.

The Theory of Ions. A Consideration of Its Place in Biology and Therapeutics. By William Tibbles, M.D. *(Hon. Causâ),* Chicago, LL.D., L.R.C.P.E., M.R.C.S., L.S.A., etc. Cloth. Pp. 131. Price, $1. New York: Rebman & Co., 1909.

Eradicating Plague from San Francisco. Report of the Citizens' *Health Committee and an Account of Its Work.* Cloth. Pp. 313, with illustrations. Prepared by Frank Morton *Todd.* Historian for the Committee, 1909.

The Emmanuel Movement in a New England Town. By Lyman P. Powell, Rector of St. John's Church, Northampton, Mass. Cloth. Pp. 194, with illustrations. Price, $1.25. New York: G. P. Putnam's Sons, 1909.

The Matter with Nervousness. By H. C. Sawyer, M.D., Member of the American Medical Association. Cloth. Pp. 210. Price, $1. San Francisco: Cunningham, Curtiss & Welch, 1909.

Medizinal-Berichte über die Deutschen Schutzgebiete für das Jahr 1906/07. Herausgegeben vom Reichs-Kolonialamt, Berlin, 1908. Cloth. Pp. 324. *Price, 7.50 marks.*

An Epitomd of Drugless Methods Used Successfully in Treatment of Acute and Chronic Diseases. By J. W. Bolton, M.D. Paper Pp. 32. Price, 25 cents.

The International Medical Annual; 1909. Twenty-seventh Year. Cloth. Pp. 683, with illustrations. Price, $3.50. New York: E. B. Treat & Co.

Reasons for Food Reform. Paper. Pp. 40. Price, three pence. London: National Food Reform Association, 40 Chandos Street, Charing Cross.

Transactions of the Medical Association of the State of Alabama. Vols. for 1907 and 1908. (State Board of Health.) Cloth.

Thirty-fifth Annual Report of the Medical Director of the Cincinnati Sanitarium, 1908. Paper. Pp. 16.

Saint Mary's General Hospital, Lewiston, Me. Sixteenth Annual Report, 1908. Paper. Pp. 71.

Nineteenth Annual Report Eastern Indiana Hospital for the Insane, 1908. Paper. Pp. 82.

Twentieth Annual Report of the Grace Hospital, Detroit, Michigan. Paper. Pp. 61.

Annual Report of the Canton Hospital, 1908. Paper. Pp. 36.

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Original Articles

REMARKS ON TIC AND CHOREA

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The tic of this paper, be it understood, is not tic douloureux or trifacial neuralgia, but painless and purely motor tic, sometimes called "convulsive tic," but generally just "tic." There being no really good English term for the disorder, the French word has been almost universally adopted. "Habit spasm" is perhaps the best that we have, but the trouble is more than a habit, less than a spasm, or rather not a spasm at all. Tic belongs to the hyperkinesias; that is, it is a disorder of movement pathologic in its excess or exuberance. It is a motor obsession, an imperative impulsion voicing itself in movement. Although chorea has little in common with tic except excess of movement, the latter is not infrequently mistaken for the former. This fact is the only justification for the following trite remarks.

The movements of chorea are involuntary and not amenable to control by the patient. Those of tic, however bad, are always volitional, even if not voluntary, and may always, at least for a short time, be controlled by the will. The first statement needs a little qualification. Long ago Weir Mitchell called attention to the fact that in some cases of chorea the choreic movements are aggravated by voluntary motion, in others rather diminished during voluntary movement and in still others the patient can, to some degree for a very short while, hold the abnormal movements in abeyance. But there never is the complete control which can always, in some way or other, be shown to exist in tic. As a rule the patient with tic says he "can't help it," and it is perfectly true that the tic movement often is unconscious, just as the man with the fixed habit of profanity swears involuntarily and unconsciously; but in the one case, as in the other, it is always possible to awaken consciousness and inhibition. In the presence of a clergyman or of ladies the most profane man will talk for an indefinite time and never utter an oath. Many a time I have sat by a youngester with tic, holding a pin in my hand and, the child understanding that the result of a jerk or twitch on his part would be a jab with the pin. I have waited long in vain for the movement which was accustomed to come every minute or less. This maneuver never succeeds in chorea.

In chorea the movements are incoordinate, purposeless; pathologic in the association and sequence of muscular contraction. They are grotesque because of their incoherence and disorder. In tic the movements are coordinate and purposive: physiologic in the association and sequence of muscular contraction. They are grotesque only because malapropos. To elaborate a bit: the movements of chorea are of a perfect type of irregular movements such as a well person never makes. One can imagine no purpose for which they would be appropriate. Whether the jerkings and writhings be of the fingers, an arm or the entire body, they have no analogy in normal function. If perchance an isolated movement looks like a natural one it is only casual and does not happen again. The very visage of the movements, if one may use such an expression, is pathologic.

On the other hand, the movements of tic are coordinate and such as well persons do often execute. They are movements adapted to an end, a natural and ordinary end, only an end which is no longer there. They are unnatural in frequency of repetition without obvious cause, but from looking at a single movement one could not know that it was pathologic; its aspect is normal. To state it another way: the movement itself may be blameless, but lacking proper parentage, it is illegitimate. For instance, a frequent tic in children is a peculiar shrug of the shoulder involving the arm, such as a nervous or sensitive child makes when the armhole is too tight. Indeed, the tight armhole, as we shall see, often starts the tic. When there is no irritant from the clothing, no physical cause for the shrug, when the movement is oft repeated, uncontrollable and has become a tic, it still preserves its coordinate and purposive character. It looks the same; but it may become greatly exaggerated, pathologic in its excess.

In chorea, as the movements are entirely disordered and neither have nor have had any object, no two movements in succession are just alike. In tic the same movement is repeated over and over. This is perfectly natural from the nature and origin of the disorder, presently to be spoken of.

When choreic movements grow worse and spread, they do so without relation to anatomic or physiologic groupings, except that in the beginning and in mild cases they are apt to be limited to one side of the body. A tic extends in one of two ways. Ordinarily it spreads by involving adjacent and functionally related groups; by adding correlated physiologic acts. A tic of the nose is apt soon to involve the lips and adjoining facial muscles. The sounds of snuffing or sniffling are produced and if the disease grows worse pharyngeal or laryngeal sounds may be expected with strong inspiratory or expiratory efforts. Possibly it spreads by another physiologic group: face, platysma, neck muscles, shoulder girdle, etc. Or a tic may become worse by the starting of a really new tic in some other part of the body, due to some other exciting cause acting on a susceptible individual. The same child may have a tic of the orbicularis palpebrarum started by a blepharitis marginalis and then a tic of the neck started by a tight collar, just as an individual may have a furuncle on the nose and a boil on the back.

Along the line of differentiation as regards volitional control is the distinction that chorea notoriously is disabling while tic is not. Frequently one of the earliest signs of chorea is the *unexpected dropping of things*. A patient with bad chorea simply can not write. Tic is troublesome but scarcely disabling. The patient with tic of the arm writes as well as ever. His malady does not jerk his hand unawares. Indeed, I may say that his *malady does not jerk his hand at all*. When the impulsion to jerk can no longer be inhibited, he takes pen from paper, then he jerks his hand once, twice, thrice —and resumes his writing. I once knew a very successful artist with an almost generalized tic. It sometimes delayed his work but did not impair its quality. Tic is not rare in successful musicians.

A striking difference between tic and chorea is that whereas the movements of the latter are uncontrollable, physically distressing and wearing, the movement of a tic, the yielding to the impulse, is attended with a certain sense of *gratification or relief*. *It is the restraint* of a tic that constitutes the strain, not the movement itself. This is well illustrated by an occurrence which I have observed many times. Owing to surroundings, command of the physician or some other motive the patient suppresses his tic, in whole or in part, for a considerable period, say fifteen to thirty minutes. Relieved from surveillance or his embarrassing surroundings, the patient at once goes on a little spree of tics, the strain is relieved and he feels more comfortable. The same sort of effort to gratify his abnormal appetite without the indulgence being apparent is seen in the little tricks by which the tiqueur tries to cover up his tic. The most frequent is *immediately to add* some ordinary movement to the tic. The patient will make an uncalled for and consequently abnormal shrug or twist or jerk less apparent by suddenly changing his position, or by stooping to pick up an imaginary object, or readjusting the clothing. A tic or phonation is disguised by clearing the throat or coughing; that is, by grafting a simulated normal manifestation onto the pathologic, he produces a plausible *tout ensemble*.

A generalized and violent chorea is profoundly exhausting. It can be endured for a relatively short time. Generalized and violent tic, which is really the association in the same individual of many tics, the *maladie des tics* of the French, may last for years and not even interfere with ordinary pursuits. I have known a successful business man who was in almost constant motion. As he walked the street the arms were thrown about in various directions, one foot would suddenly be raised as if the man had stepped on a live coal; he emitted various sounds, sometimes almost rising to a shout, and jerked the head about as if to throw the hat from his head. His conversation was broken by sundry snorts, ahems and exclamations. Yet he continued to attend to his affairs day after day as if in good health.

While convulsive tic is almost purely motor in manifestation, its inception, in the vast majority of cases, I believe to be sensory. Take one of the most frequent and simple examples. A child acquires a nasal catarrh which causes a little irritation and slight discomfort about the nostrils. This, not unnaturally, begets the familiar drawing, wrinkling, twisting movements of nose, lip and adjoining parts. But this response is not yet tic. When the irritation has been relieved, when there is no longer a local sensory stimulus and the twitching still continues; when the patient has great trouble in controlling it and the indulgence is attended with a sense of relief, then it is tic. When this twitching spreads to near-by and associated groups of muscles and the individual has become the slave of his tic appetite, then he is a confirmed tiqueur, a tic maniac, and hard to cure. In this stage of the affection the original sensory impression which pulled the trigger may be, often is, entirely forgotten, but none the less it was there.

Some cases of tic seem to start as a mere nervous restlessness or fidgetiness or perhaps as only a vague sense of bodily discomfort or embarrassment. This, too, it will be conceded, is essentially a sensory condition. Some tics begin as something which looks like occupation neurosis, but these cases likewise are really of sensory origin. The occupation or, rather, excess of occupation, causes a more or less localized pain, ache, discomfort or fatigue, and this sensation starts the repeated muscular contraction which is some relief to the patient and which ultimately develops into a tic. Occasionally the disorder seems to arise from imitation. In the ultimate analysis I believe that this, like the others, is a sensory origin, but I shall not stop to insist on it. I do wish to insist that tic never is a "reflex neurosis;" that is, a tic of one part caused by irritation or disease of a distant and not obviously related part of the body. For instance, that a uterine fibroid or hemorrhoids may have as a "reflex" a tic of the orbicular palpebrarum is utterly absurd. On the other hand, I can readily imagine that disease of a viscus, by causing pain or discomfort in one of the superficial areas as described by Head, may cause a tic of the muscles underlying this area, although I do not recall having seen such a case.

I dislike to leave the subject of tic without a word concerning spasmodic torticollis—granting that it never could be mistaken for chorea. Though this distressing disorder seems to be something *sui generis*, a thing apart, personally I believe that it belongs with the tics. If it be not a true tic certainly the relationship is very close. Clearly it is not, what it often is thought to be, a local disease, an affection of the spinal accessory nerve or of the neck muscles. When Brissaud called it "mental torticollis" he did a helpful thing in emphasizing its essentially psychic nature. On the other hand, it can not be denied that the disorder in some ways approaches writer's cramp and allied disorders. Still, the points of resemblance with tic are, to my mind, much more striking. I briefly mention just half a dozen of them:

1. The subject of spasmodic torticollis, as the subject of tic, is always a neuropath. He shows the same sort of abnormal susceptibility, the same psychomotor inability, the same lack of inhibition. Several times I have thought that I had found an exception to this rule, but in each case more intimate acquaintance with the patient has shown me the error of my first impression.

2. What has been said of the sensory origin of tic applies to spasmodic torticollis. For example, muscular rheumatism, the ordinary "stiff neck," is not rarely the origin of the trouble.

3. The emotional state of the patient has much to do with the neck spasm. It is always worse when the patient is self-conscious or "upset." On the other hand, intense mental preoccupation may entirely abolish the trouble—for a brief space.

4. In torticollis there is the same strain in repressing the muscular drawings as in other tics, and the same sense of relief in "letting it go." A patient riding in a street car will repress the movements until he can stand

it no longer. Then he will hide behind his newspaper and have a little motor indulgence—which gives him a measure of sensory satisfaction or relief.

5. The muscular contractions of spasmodic torticollis are not true spasms; they are volitional. And they always are more or less under voluntary control. I can not take time to elaborate this point, but the following two perfectly characteristic incidents will serve as an illustration: In a crowded railway station I was watching a man with typical spasmodic wry neck. The contractions almost constantly rotated his head strongly to the right so that he had some trouble in moving about among the many people. In the height of one of the so-called spasms a locomotive bell suddenly sounded to his left. Instantly he turned his head to look in that direction, and the movement was as prompt, as smooth and as complete as it could possibly be.

Quite recently, by means of rest and educative exercises, a patient under my care had very considerably improved; that is, under my direction she could move the head in any direction and hold it in any position at will or to dictation. But her husband complained that at home and on the street she was very little better. One day he came with her. With growing impatience and irritation he watched her go through her exercises without a hitch, then quietly sit and converse with me without a trace of the old jerking and drawing. And when I said, "There, can't you make her do that?" he replied, "Not by a d—d sight; you's better take her and keep her."

6. The patient with spasmodic torticollis invariably has some trick of restraint: what Brissaud has called a restraining gesture. It is one of the most striking things connected with this peculiar neurosis. A man whose neck muscles are twisting his head around with the greatest violence will gently place a finger against his chin or lay his palm over the occiput, when the muscles at once relax and the head assumes its normal position. Oftentimes if the head can merely touch the back of a chair or the wall the trouble is suspended.

Elsewhere[1] I have related the most striking example of this restraining gesture with which I am acquainted. It seems sufficiently illustrative for repetition: An unusually muscular man had a torticollis which repeatedly — indeed, almost constantly — powerfully rotated his head to the right. But at any stage of this "spasm," which no manual force could possibly overcome, if the patient extended the right arm, pointed the index finger horizontally at his nose and then moved the hand rapidly toward this feature, the head would immediately move in unison with the hand and rotate into its proper position.

As tic and chorea are in nowise related, the proper treatment of the two affections is radically different. In foundation the tic is a mental disease or, as possibly a somewhat broader expression, we may say a psychic disease. As I have already stated, the exciting cause may be a local sensory irritation or discomfort or pain; but such an exciting cause had no effect in a normally resistant individual. For the development of a tic there must be an underlying hypersensitiveness or lack of balance and the fully developed affection belongs essentially to the obsessions or imperative impulses.

Above I have likened the local irritation to a trigger which sets off the tic; but the individual must previously have been loaded—by misfortune of inheritance or other influence.

Still, as a local difficulty is often the exciting cause, the disease never would begin were such local trouble not there, and, consequently, it is reasonable to assume that the discovery and removal of any and every local disturbance must be the primary move in the treatment of tic. Equally, of course, must everything be done to promote the general health, vigor, vitality and tranquility. These things having been done, the rational treatment must really be a system of education or training, a training to decrease sensitiveness, to strengthen inhibition and increase self-control. This is quickly said, but the task itself may be a time-destroying, tact-demanding one. Sometimes it is a hopeless one. To this must often be added some element which will awaken the consciousness of the patient to the presence of his tic. As I have already said, while a tic is always volitional, it may be unconscious or subconscious, and, naturally, the patient can not control the movements unless he knows that he makes them.

Harking back to the simplest example which I adduced a few minutes ago, of a child with nasal catarrh and irritated nares, such a patient may frequently be cured by removal of the nasal catarrh, rendering the parts perfectly comfortable, followed by repeated admonition by parents and teachers. If the case be more confirmed, the impulse more imperative and self-control feebler, it is necessary to attach some discomfort to the gratification of the appetite to tic. What I have found to be the readiest and most effective means is the simple prick of a pin, but this must be repeated every time that the patient indulges in his so-called spasm; that is, each indulgence in the tic movement must be accompanied by a discomfort. Soon the patient finds that the satisfaction of the tic is exceeded by the dissatisfaction of the prick. Naturally, he strives for the greater comfort. When the patient's knowledge that every abnormal movement is accompanied by a penalty becomes part of his consciousness he is far on toward recovery. When this knowledge becomes subconscious and the patient instinctively, subconsciously, automatically acts on it, the tic disappears. And when the impulse to make the movement, the appetite for it, has ceased, he is cured.

The principles involved in this every-day example apply to all cases, mild or severe. An elaboration of detail seems unnecessary. But it is only fair to add that in a severe case success depends on attention to all of the details involved in carrying out the principles above outlined.

34 Washington Street.

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[1] Convulsive Tic, THE JOURNAL A. M. A., Feb. 11, 1905, xliv, 435.

Prophylaxis of Seasickness.—A letter from Holland in the *Wiener klinische Rundschau*, Jan. 20, 1908, states that a naval surgeon, van Trotsenburg, has been testing the sensitiveness of different individuals to shifting levels by having them stand blindfolded on a platform arranged to change its level noiselessly in various ways. Neither age nor other physical conditions seemed to affect the findings of the test, but persons accustomed to ships were much less sensitive to the movements of the platform than others. He is convinced that a little exercise on such a platform, before starting on a sea voyage, would have a powerful influence in warding off seasickness, and he recommends the installation of a swinging platform of this kind in connection with the floating sanatoria.

THE ANAMNESIS OF SURGICAL CASES

ITS PECULIAR IMPORTANCE TO THE HOUSE PUPILS OF HOSPITALS AS A MEANS OF STIMULATING INTEREST IN HISTORY-TAKING

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In Dr. M. H. Richardson's article[1] on "The Significance of Clinical Histories Before and After the Operative Demonstration of the Real Lesion," attention is called from a high place to a much-neglected part of medical education and medical practice. So essential is the importance of careful, intelligent history-taking that our wonder must be the greater at its relative neglect not only in our medical schools but, strange to say, in the wards of our great hospitals. It should be somewhat of a reproach to us that such an article as Dr. Richardson's should be considered necessary. That it is both necessary and timely the visiting staffs of our hospitals will bear ample testimony.

I think we may safely assume that the average medical history in the record-books of a hospital is better taken than the average surgical history. A cursory examination of hospital records will indicate this. The reason is apparent. Aside from history-taking in that period of his house officership, the medical house pupil has much less to do than his surgical confrère. Dressings, bandaging, accident work, etc., do not fall to his lot. It does not follow, however, that the clinical history of a surgical patient is any less important than that of a medical patient. In fact, it is with the great importance of properly taken clinical histories in the surgical wards that this paper has to do, and when in the course of the article I speak of house pupils, surgical house pupils only are meant.

The average house pupil does not look with favor on his history-taking period. He regards it as a dark place through which he must pass to reach regions of light beyond, a sort of unpleasant chore to be done with as little or as much thoroughness as may suffice to satisfy the occasional hasty glance or question of the busy visiting surgeon, an occupation of far less dignity than the more objective portion of his duty (bandaging, dressing, accident work, assisting, etc.). If my memory serves me well, my ideas in my apprentice days were not unlike these just expressed. My records of those times doubtless bear witness to the fact. That the last decade has brought improvement in this regard is not to be denied. But that the present standard of clinical histories is entirely satisfactory is very far from being true. Undertake, if you will, the study of a series of surgical cases extending back over a few years of hospital records and prepare yourself for disappointment. Errors of omission and of commission are so frequent and so flagrant that much otherwise valuable material is for many purposes rendered almost worthless. It is discouraging to find that perhaps in four out of ten clinical records the presence or absence of important, essential features of a case has gone *unrecorded*.

Who has been to blame for this condition of affairs? If it is to continue, on whose shoulders is the responsibility to rest? Occasionally the patient is at fault either through inability to express himself in English or through dense ignorance. It is possible, too, that there may be house pupils who do not take sufficient interest in their work to make an effort to take a good history; the lazy house pupil will be with us always. But, speaking generally, it is the visiting men who must be indicted here. It is their failure to give competent instruction, their neglect to make intelligent criticism, their almost total lack of interest in the matter, that has allowed history-taking to become and continue unsatisfactory. If we make no attempt or take no pains to teach the *why* and the *how* of history-taking, how can we expect the house pupils to grasp its importance, and why should we expect improvement in their work?

As we go on in years, the *why* grows more and more evident. No one can doubt the value to patients, present and future, of good history-taking. That is the prime *why*. But in a purely selfish sense, for the house pupil himself there can be no more valuable training, no more fruitful experience, than this opportunity of checking up by operative findings, by living pathology, his story of the patient's ills, his objective findings and his conclusions from both premises. His senses will be trained to observe accurately, his mind to deduce soundly. It lies within his grasp to learn from both his successes and his failures and to broaden and strengthen his whole professional foundation. The better his histories, the more accurate his observations, the sounder his deductions, the more useful will he be to humanity, the more satisfactory to himself.

A recent article by Mr. B. G. A. Moynihan[2] of Leeds should be carefully read by every surgical house pupil and, for that matter, by every surgeon. He calls attention to the urgent need of an earnest investigation into *the inaugural symptoms of disease*, to the paramount importance of the patient's own story, to the great opportunity that legitimate surgery has of demonstrating the living pathology of all stages of disease, and by comparison with the sufferer's story, by cross-examination of the patient after recovery from operation, to work the knowledge thus gained into such a form as will enable us to recognize and treat disease earlier and with increased chance of permanent relief. Says Mr. Moynihan:

> The surgeon, when he is about to operate on a patient suffering from any abdominal disease, has the opportunity to observe not only those parts for which his operative interference is immediately necessary, but also all other viscera which can be laid bare through the same incision. If a morbid process in its earliest stage be then discovered, perhaps in parts other than those primarily concerned in the operation, the patient's story of his sufferings may be retold and cross-examination conducted thereon, as soon as recovery from the operation is complete. It rests, therefore, in no small degree with the surgeon to elicit the inaugural symptoms associated with the pathologic changes which he finds within the abdomen and by making sure of their significance and of the due order of their appearance to furnish the knowledge that will ensure clinical recognition of visceral diseases in their early stages, in the stages when they are surely amenable to curative treatment.

What an added interest this should give to history-taking! What a live subject it should make of it! What an opportunity for the house pupil of this day, when operations are so frequent and veried! What a change this should bring about in the house pupil's idea of what is the vitally important part of his hospital training! How far wrong our training of house pupils has been is evidenced by the present-day measure of value put by them on hospital service. This or that hospital service is judged good or bad, worth taking or not worth taking, by the amount of major operative work given to the house pupil. Social and other influences enter into the matter to a greater or less extent. But the chief question the prospective house pupil asks himself is: "How much major operative work am I to get?" Of what really small moment to him is his doing one or, perhaps, more appendicectomies, cholecystectomies, herniotomies or whatever operation you will — of what little relative importance is that compared with his opportunity of acquiring the ability to take a good clinical history, to make sound deductions from the patient's story and his own objective finding and to care properly for his patients before and after operation! I do not mean to say that a surgical house pupil should go out wholly untrained in the technic of his specialty. But I do intend to say that the technical part has been magnified (at least in the house pupil's eye) out of all proportion to its relative importance. Surgery is all technic only to the operator who lacks a conscience or to the heedless onlooker. To the honest surgeon his profession is very far from being entirely technical. The average house pupil evidently often fails to fully comprehend the truth of this statement.

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[1] Boston Med. and Surg. Jour., clviii, Nos. 15 and 16.

[2] Brit. Med. Jour., Nov. 28, 1908.

Almost three-quarters of a century ago Sir Benjamin Brodie, in his "Introductory Discourse at St. George's Hospital," expressed a truth which is as potent to-day as it was then. "It is not," he said, "by going through the form of walking round the wards daily with the physician and surgeon that you will be enabled to avail yourselves of the opportunities of obtaining knowledge which the hospital affords. You should investigate cases for yourselves; you should converse on them with each other; you should take written notes of them, and in doing so you should make even what are regarded as the more trifling cases the subjects of reflection. Some individuals are more, others less, endowed by nature with the power of reflection; but there are none in whom the faculty may not be improved by exercise, and whoever neglects it is unfitted for the medical profession. You will be at once sensible of the great advantage arising from your written notes of cases." Comment is quite unnecessary.

It manifestly devolves on hospital staffs to teach the how of history-taking to house pupils. This should be a part of our routine work, at least until each surgical service has its resident surgeon. Right here it may be said that by no means the least important of the arguments in favor of having resident surgeons is this very fact that men, trained as they would be, could be safely entrusted with the duty of teaching house pupils not only history-taking and examination-making, but also the general care of patients. Surgeons, house pupils, patients, all would be the better for it. But until the day of the resident surgeon has come hospital staffs must do this portion of their duty. Many of us have been remiss, we at the Carney Hospital no less than others. Realization of the fact has led us to adopt corrective means. In the first place a resident surgeon has been appointed. In the second place a card system of typewritten cards has been adopted which we believe has helped house pupils in their clinical history-taking. Examples are appended below. The scheme is presented not as an infallible method of assuring an intelligent history, but only as a useful way of directing the trend of a house pupil's questioning and inquiry and as a means of making certain the recording of the more important features of cases.

It may well be objected that an intelligent use of the cards presupposes (e. g., in abdominal affections) at least a probable diagnosis. It must be admitted that in abdominal cases the house pupil would have to make a preliminary loose diagnosis, as, for instance, the probable general localization of the trouble (upper abdomen, right iliac region, etc.). But his use of the cards covering affections of this or that region, his obtaining the answers to the questions required would lead him to the making of a more exact diagnosis. A house pupil in his general talk with a patient can in the great majority of cases get an idea of the region affected and can usually come to the conclusion that the symptoms are those of one of two or three diseases. Besides, it is not necessary that a complete history, with all the minutiæ, should be obtained at one sitting, so to speak. Both the resident surgeon and the visiting man may see the case in the meantime and aid by suggestion and opinion.

The cards are not intended to cover every possible point in a clinical history; they seek to call the house pupil's attention to the kind of knowledge to be sought from the patient, to the essential points in a story, and to indicate certain lines along which the questions may

BREAST TUMORS

History

Family History—Cancer? Tuberculosis?
Marital and Menstrual History.
Lactation—Inflammation? Abscess?
Trauma?
What first called attention to trouble? How long ago?
Rate of growth? Any increase in size during menstruation?
Pain. If present, how long? location, character, transmission.
Cough?
Any loss of weight or strength?

BREAST TUMORS

Examination

Location of tumor (which quadrant?). Its size, shape, consistency, movability (adherent to skin or to deeper tissues?), tender? Dimpling or discoloration of skin over tumor?
Ulceration? Sinuses? Charcter of any discharge.
Nipple. Eroded? Ulcerated? Retracted? Character of discharge from it, if present.
Any involvement of axillary, supraclavicular or cervical glands?
Chest examination.
Arm. Edema?
Metastasės anywhere? Liver. Size. Nodular?

STOMACH AND DUODENUM

History

Family History—Cancer, etc.?
Past History—Dyspepsia? [illegible] Character and duration of [illegible]
Present Illness—Pain or [illegible] (constant, intermittent, dull, sharp, etc.). Transmission—relation to ingestion of food (before? after? relieved or increased by? How long after ingestion?—"Girdle pain"?
Any attacks of sudden, sharp, prostrating pains?
Belching gas—When?
Vomiting—When? Does it give relief? Relation to ingestion of food? Frequency?
Vomitus—Amount? Color? Contents? Acid? Blood? Food?
Nausea? Water-brash? Hematemesis?
[illegible] Sweats?
[illegible] diet. Loss of weight or strength?
[illegible]
[illegible] blood in stools?

STOMACH AND DUODENUM

Examination

General—Cachexia? Anæmia? Palpable supraclavicular glands on left?
Tumor? If present, location, size, movability (of itself? with respiration?), tenderness, consistency, etc.
Tenderness—Location? Degree?
Visible pulsation? Visible peristalsis?
Outline of stomach, (a) empty, (b) distended.
Liver—Enlarged? Nodular?
Findings in stomach washings after ordinary meals, after test-meals, etc.
Examination of stools for blood.
Blood examination.
Signs of locomotor ataxia?

lead. The cards,[3] therefore, are to be regarded as indicators rather than as absolute guides.

These cards, covering a wide range of subjects, are perforated and hung on a large ring which the house pupil carries with him on his history-taking errand. There are also cards which indicate the points to be noted in the postoperative course of patients, e. g., the immediate and more remote postoperative symptoms, the treatment and its result, the placing and withdrawing of wicks, sutures, etc., the character and amount of discharges, etc.

Furthermore, if in connection with any disease some new point of diagnosis, etc., is brought out, the placing of this on the proper card calls the attention of the house pupil to it, its presence or absence is noted and statistics bearing on its importance are thus obtained.

Our experience thus far has led us to feel that the use of these cards puts the house pupil in the way of taking an intelligent history and aids him in the formation of good habits in that direction. If further experience corroborates this view, we shall feel that something needed has been accomplished.

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OPERATIVE TREATMENT OF TUBERCULOUS JOINTS

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The treatment of tuberculous-joint disease has long been a disputed question, and the profession is not today agreed on a uniform plan of action.

Many methods of treatment have been advanced and these methods have been supported and resupported by long series of statistics and by thoroughly credible reports of results.

When the complete review has been made it seems to me that we must conclude that there is no one correct line of treatment for tuberculous-joint disease, but that the method selected must depend on the nature and stage of the lesion, the age and social position of the patient, facilities for treatment, the individual experience of the physician in charge, or that results must be accomplished by a combination of all available methods.

Treatment by rest, diet and in favorable hygienic conditions, by Bier's congestion hyperemia, by iodoform injection, by vaccine therapy and by cutting operations must each have a definite field of applicability or be used in proper combination.

It is not my purpose to discuss the comparative value of the different methods of treatment that have been advanced, nor does my experience justify me in drawing conclusions regarding the entire field of application of the operative treatment. My experience has been largely confined to the operative treatment of adults who have suffered from this disease. Inasmuch as seven-eighths of all patients who suffer from joint tuberculosis are less than fourteen years of age, it will be readily seen that my experience and results can not justify general conclusions.

Twenty-five patients have come under my care in whom the operative treatment has been used, and it has seemed desirable to me to report the results in these cases as a contribution to the general subject.

Of the lesions, 13 have been in the knee, 7 in the ankle, 3 in the elbow, 1 in the wrist and 1 in the hip. Inasmuch as a fairly uniform method of procedure has been used in these cases, I wish first to describe the operative technic in each joint.

TECHNIC OF OPERATIONS ON THE KNEE JOINT

In the knee joint the incision is uniformly made from condyle to condyle across the center of the patella, the lateral quadriceps expansions are divided, the patella is sawed through, the knee is acutely flexed, the fragments of the patella are drawn upward and downward and a complete exposure of the ends of both bones and of the entire joint is obtained. A correct estimate of the nature of the lesion can now be promptly obtained, and the points considered are (1) bone involvement, (2) extensions outside the joint into the soft tissues. A tourniquet is always used for the purpose of giving a bloodless field for accurate dissection.

My experience includes an unusually large percentage of purely synovial cases (fifteen out of twenty-five), under which heading I would include those cases in which there is merely a superficial erosion of bone. When the case is of this type a sharp knife dissection begins in the lower half of the joint, just behind the patella, progresses in a systematic manner and removes the synovial membrane, together with all thickened tissue, out to the quadriceps aponeurosis.

When the dissection reaches the head of the tibia a heavily bladed yet sharp knife is used and the bone is pared, not only around its borders, but over the upper surface, when the articular cartilage is diseased or loosened from the bone.

When this dissection reaches the posterior border of the tibia it is discontinued for the time being. The dissection then begins first on one side, then on the other, then between the condyles, and all tuberculous or suspected tissue is in the same manner dissected around the head of the condyle to the popliteal soft tissues.

When this point has been reached the bones can be much more freely separated than previously, and the same sharp dissection is continued over the entire posterior portion of the joint, particular attention being given to the posterior border of the tibia.

Caution must be used in this part of the dissection not to injure the popliteal structures. When this part of the dissection has been completed the upper fragment of the patella is drawn strongly upward and the quadriceps bursa is accurately dissected out. In some instances this cannot be completely accomplished without a lateral longitudinal incision at the outer border of the patella. Any superficial erosion of either bone or small area of necrosis is cut out with a sharp knife; never with a curette. Indeed, a curette is never used in this operation unless there should be a sinus or cavity extending into the soft tissues in such a way that free incision and dissection is impossible. The curette necessarily mashes the tissues and exposes the patient to the risk of having tubercle bacilli jammed into deeper tissues, which are left behind. I would make a special point of clean-cut, sharp dissection with a knife. A most careful search is always made for bone foci or minute sinuses extending into the deeper bone structures. The bone-paring is always made down in perfectly healthy bone.

When there is a focus of bone tuberculosis in the head of the tibia or in either condyle and the focus is not of a size sufficient to necessitate the removal of the end of the bone, the area is likewise excised by cutting around with a sharp knife well below the deepest point of the focus; then a sharp gouge is used to lift out this cylinder or cone of bone tissue. I consider this decision as to the extent of bone involvement a heavy responsibility and one not to be undertaken until careful microscopic study of such tissues has justified a fair degree of accuracy in such judgments.

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[3] Cards 5⅞ inches by 3 15/16 inches.

When the dissection has been completed, pure carbolic acid is swabbed over the entire area of dissection and left in contact with the tissues for three minutes. Alcohol is then applied to neutralize the carbolic acid. The entire dissection has been conducted according to the same principles followed in malignant disease.

When cavities are left in the bone these are carefully dried and filled with the Mosetig-Moorhof iodoform bone-plugging mass, which is allowed to harden. The tourniquet is now removed, all bleeding points are secured, and the wound is ready for closure.

Conservatism in the removal of bone has been my rule in all these operations, and the end of the bone must be very seriously damaged to justify sawing it off. Those patients in whom erosion or atypical excision is done heal as satisfactorily as after a typical excision, and the function has seemed to me so much improved by maintaining an extremity of normal length that I consider this to be a very important point. Those patients who have not had bone removed get along almost without a limp. Indeed, one young woman whose occupation was that of elocutionist has continued her professional work on the New York stage and very few people know that she has a stiff knee. Even her manager did not know this fact until he saw her going upstairs.

Bone foci of considerable size can be cut out and filled in with iodoform mass without great sacrifice in the length of the bone. In Case 10 the upper surface of the tibia was sawed off in an excision and the focus was seen to extend much deeper into the head of the tibia. When this focus was removed a cavity was left which was, I think, about the size of an egg. This was carefully filled in with iodoform mass. This patient has had perfect recovery and has a solid, well healed leg.

The wound is usually closed with interrupted No. 3 plain catgut. In excisions two chromic gut sutures are usually put into the bone through drill holes to maintain position until the splint can be applied. The patella is not wired, since a heavy suture on either side and suture of the soft tissues in front are usually sufficient to maintain the apposition. A drainage tube is regularly placed on one side or the other to take care of the blood and serum for the first three to seven days; then it is removed. A strip of sheet rubber or gutta-percha tissue is usually placed on the opposite side of the joint for a similar reason and left for the same length of time.

After the wound is closed dressings are applied in such a way as to facilitate subsequent change. Plaster-of-Paris bandages, four to five inches wide, are then made into a strap long enough to extend from the gluteal fold to the tips of the toes. This strap is made of about twenty layers of gauze and a heavy piece of strap iron about eighteen inches long is included. This reinforced plaster-of-Paris strap is then placed on the posterior surface of the extremity, which has been well wrapped with ordinary splint cotton; then plaster-of-Paris bandages are used to make an encasing splint, which extends from the perineum to the tip of the toes but does not include the knee.

When a sufficient number of turns have been made to give solidity a second strip of hoop iron is placed on the anterior surface. This strip is bent in such way as to make a high arch over the knee, the arch being six to eight inches broad at the base, and the strip is curled up at each end to make a hook. More plaster-of-Paris bandages are now rolled on to incorporate this anterior iron strip. When the splint is completed and the plaster hardened immobilization is complete; the arch at the knee gives free access to the wound and the hooks at either end, together with the arch at the middle, give three points from which the entire extremity can be suspended by rubber cords to a longitudinal bar which is placed over the bed. This swinging position adds greatly to the comfort of the patient.

The wound is dressed on the third day, drainage removed on the fifth to the seventh day. The sutures are removed on the tenth day; the wound is healed, as a rule, in three weeks. The splint is removed in three to five weeks and replaced by a simple encasing splint which extends from the ankle to the middle of the thigh.

Bony union is often very slow and may not be complete until eight to twelve weeks after operation.

TECHNIC OF OPERATION ON THE ANKLE JOINT

By far the best exposure of the ankle joint is given by an anterior incision which extends from one malleolus to the other, directly across the instep. I have sometimes modified this in such way as to make an anterior skin flap extending somewhat downward on the dorsum of the foot and have divided the tendons and other structures on a higher level, yet both methods seem to be efficient. The incision extends first through the skin and subcutaneous tissues, the tendons are exposed and sutures are placed well above and below the point of division in each tendon and so marked that identification will be easy when they are to be reunited. The ligaments and other surrounding tissues are now divided and the joint opened. The same careful dissection is now instituted as has been described for the knee, and every vestige of tuberculous tissue is most carefully removed. Particular attention is given to the calcaneo-astragaloid articulation, which is frequently secondarily involved and may be the primary focus of infection. Whenever the patient complains of great pain in standing and inability to walk, this joint is probably involved.

In Case 20 it became necessary to remove a practically normal astragalus in order to thoroughly expose and dissect out this joint. Attention is likewise called to the great importance of the tibiofibular articulation. This articulation must be thoroughly exposed, since it is regularly involved. When cavities are found in the astragalus, os calcis, tibia or fibula they are cut out with a sharp knife and the cavity filled with iodoform mass.

After the dissection is completed the joint is treated with pure carbolic acid and alcohol, the tourniquet is removed, vessels secured and the joint closed. The dressings are applied in two sets, one on the anterior surface, which can be removed without disturbing the foot in the cast; the other set are laid in the cast before it is applied. The splint used after this operation is a posterior strap of plaster-of-Paris, which has incorporated within it a strip of hoop iron; then several rolls of plaster bandage are put on as an encasing splint, or an anterior strap is first applied; then the circular turns are used to hold the anterior and posterior straps in place. This joint is likewise treated by tube drainage for from five days to one week. The after-treatment of the ankle is practically the same as that of the knee. The results in this joint, as in the knee, are much more satisfactory when a mixed infection has not taken place.

TECHNIC OF OPERATION ON THE ELBOW JOINT

The elbow joint is best exposed for careful dissection of all rarifications of the synovial membrane by posterior incisions. A longitudinal incision is first made along the inner border of the olecranon, extending about two and one-half inches below and three inches above the tip of the process. A second transverse incision is then made on a level with the radiohumeral articulation and extends from the first incision to the outer border of this articulation. The longitudinal incision extends through into the joint. The transverse incision is first made through the soft parts; then with a chisel or saw the olecranon is divided on a line with the superficial incision. This gives a flap above which includes the olecranon the triceps muscle and overlying skin. This flap is retracted upward and strong flexure of the elbow causes the three bones to stand out distinctly. Careful attention must be given to the ulna nerve during this flexure, and it may be necessary to do a subperiosteal dissection beneath the nerve and lift it over the inner condyle, or to clip off the inner epicondyle before completing the flexion.

The dissection of the synovial membrane is now carefully completed in the same manner as has been described for the other joints, great care being given to the radioulnar articulation.

The joint is closed with drainage and all parts are sutured back into position. The olecranon is reunited with gut, which is used in the soft tissues only. A strap plaster splint is applied with the elbow at a right angle. The after-treatment of this joint differs in no way from that given for the knee, except that I have endeavored to get motion in this joint, and begin with gentle movements about three weeks after operation.

SUMMARY OF TWENTY-FIVE CASES

Detailed case reports can not be included in this paper, and the following summary of important points may be of interest:

There were 12 female patients and 13 males. All except one were of the working class and were dependent on their own or their parents' daily labor for support.

There was no family history of tuberculosis in 19 cases. There had been a definite injury to the joint in but 7 cases. The duration of the joint trouble ranged from five weeks to twenty-one years. In fifteen cases it had been more than one year. The general health was bad in 10, fairly good in 6, good in 9. There were tuberculous lesions elsewhere in 5 cases, 1 in lung, 1 in opposite knee, 1 in opposite ankle, 1 in Fallopian tube, 1 in spine and lung.

There were three children whose ages were 6, 7 and 15. The ages of the remaining patients varied from 18 to 40. Three were under 20. Thirteen were between 20 and 30; 6 were over 30. There were no sinuses present in 19 cases.

Some of these cases have been reported incompletely in a previous paper, but are included in the present report in order to give the conditions of the patients to-day.

Twenty-five cases are reported. Of this number 18 may be considered to justify a conclusion as to the cure of the disease. It would seem justifiable to consider a patient cured when the wound has healed and remains healed and painless for many months and when the extremity has been restored to its function for a sufficient period to justify the conclusion that it will be permanent. I realize that exceptions may be taken to such conclusion and that a much longer period may be demanded by some.

Of this number 12 are completely cured and are using the extremity without support in their ordinary duties. Two have a single persistent sinus of minor importance, but have good function. In one the result is not known, but the progress was favorable up to the time of the patient's disappearance, one year after operation. In three the extremity was amputated subsequently, but I am not convinced as to the justification for amputation in two.

In the remaining seven recent cases the wounds have healed satisfactorily, the primary result is good and a cure is confidently expected in all, but a sufficient length of time has not elapsed since operation to justify a report of final results.

In the three cases in which amputation was done two showed extensive and extreme destructions of the joint at the time of the excision, and the general condition of the patient was bad. Excision became in these cases a trial measure of conservatism. There were other cases in this list, however, in which that joint seemed to be as extensively involved, cases in which amputation had been advised, yet excision and erasion accomplished a cure.

Seven erasions or, more properly speaking, atypical erasions have been done in the knee, 7 in the ankle, 3 in the elbow, and 1 in the wrist.

No flexures have developed and useful motion has been developed in three knees and two elbows. The motion is perfect in one elbow. The motion in other cases is slight, varying from 10 to 25 degrees, but is much prized by these patients. The endurance in the recovered cases seems good.

In one case a secondary operation was necessary, and in two I have cured a persistent sinus by local applications and without the use of a general anesthetic. I do not know what might have been indicated in the cases of amputation.

There have been no deaths from operation. No patient has developed tuberculosis elsewhere by metastasis. Patient 5 showed some pulmonary symptoms for a time within a year after her operation, but they were never clearly tuberculous and I believe that from the facts that they disappeared promptly and that the girl has remained in perfect health, we may safely assume that they were not. Patient 1 had the physical signs of tuberculosis at the time of her operation, but these signs disappeared and she has been in excellent health for almost four years since operation. Patient 16, whose ankle was amputated subsequently to the original operation, suffered from tuberculosis elsewhere at the time of her operation and died of tuberculosis of the bowel. This patient was in wretched health as a result of generalized tuberculosis and the bowel condition developed more than one year after operation.

The operative method of treatment has been recommended and adopted in these cases for a variety of reasons. In many it has been adopted after a careful application of the accepted non-operative methods of treatment. In Case 7 the patient has been under treatment by competent men for eight years, yet she came to me on crutches. In this case I found such marked evidence of pelvic tuberculosis that I first operated on the abdomen and removed a tuberculous right Fallopian tube. I then used immobilization and Bier's congestive hyperemia on the knee for a period of almost six months without the slightest improvement. At the time of operation the inner one-half of the joint showed an active fungous tuberculosis. The outer half showed well-advanced healing within the joint, but the outer portion of the tibia immediately beneath the healed portion of the joint showed an active bone focus the size of the last phalanx of my index finger. Again in Cases 18 and 19 under long continued hygienic conditions the joints grew worse or failed to improve.

In other cases operative treatment has been recommended because of the seriously destructive nature of the lesion at the time the patient came for treatment.

In the third group of cases the social position of the patients demanded an early restoration to a wage-earning capacity and after a thorough explanation of the situation the patient has selected the operative course.

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PHOSPHORUS COMPOUNDS AS BRAIN FOODS *

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Our knowledge of the nutritional requirements of the nervous system may be said to be very incomplete. As it is probable that the efficiency of any tissue as a working machine is largely dependent on a proper state of nutrition, it may be of interest to review critically, in the light of recent work, some of the suggestions that have been put forward with regard to the nervous system. Two general methods of procedure may be observed, the one depending purely on stimulants, such as caffein, strychnin, cocain, alcohol and similar substances; the other using as its basis the supply of such substances as the nervous system is supposed to use in its function, namely, phosphorus in different combinations; the one attempting to stimulate the nervous system to activity, the other to increase its efficiency by giving it the proper food.

We all naturally wish to have our nervous systems in the best of condition at all times, and the correct knowledge of how to accomplish this will add greatly to our efficiency. The difficulty of obtaining accurate knowledge on this point makes it appear likely that this field may pass into the hands of the psychologists altogether. No one will deny that the development of proper habits[1] will add greatly to our efficiency as workers and that to cultivate habits of day-dreaming is bad and probably can not be cured by the administration of phosphorus in any convenient form. At the same time a normal healthy person with a nervous system in a good state of nutrition is very apt to be an efficient working machine. When such a machine becomes fatigued as the result of use the question arises whether it needs stimulation or food. Our present knowledge does not permit us to give an answer to this question. We do know, however, that those stimulants which we at present use have a deleterious effect when taken in excess, but there may be other stimulants normally manufactured in the body which are not open to that objection. We are just beginning to acquire some knowledge as to the extent to which the tissues of the body are dependent on one another for their activity.

The work carried on in this laboratory on chemistry of the nervous system has so far not taken up the first point, but has followed the question of the nutrition of the brain during growth and as the result of mental disease. A brief statement of the bearing which the results so far obtained have on our present-day ideas may be of interest.

The idea of the relation of mental activity to phosphorus is old, and as far back as 1869 there appeared an article by L. H. Wood[2] on the influence of mental activity on the excretion of phosphoric acid. Now it is apparent to any one that a tissue which represents only about 2 per cent. of the total body weight can not possibly influence to a considerable extent the composition of a fluid which derives its material from all the other tissues of the body, unless such a tissue is very much richer in phosphorus than in the other tissues or has a much more active metabolism. That such is not the case, in spite of popular notions to the contrary, is well illustrated by Table 1.

Table 1.—Percentage of Phosphorus in Body Tissues

	Total Phosphorus.	
	Per Cent. in Dry Fat Free Tissue.	In Moist Tissue.
Muscle	0.90-1.50	0.22-0.38
Liver	1.34-1.60	0.34-0.40
Kidney	1.34	0.42
Pancreas	1.70	0.40
Brain	1.44-1.50	0.33-0.35

From Table 1 it is evident that the brain has by no means an unusual amount of phosphorus in comparison to the other tissues. As the above figures apply to the normal brain the question arises whether it may not be necessary sometimes to supply the brain with phosphorus when its total store has become decreased. Before answering this, let us see if there are any special forms of phosphorus compounds in which the brain is especially rich and of which, reasoning teleologically, it would therefore be in greater need. The figures in Table 2 do, indeed, lend some support to such a notion.

Tabld 2.—Percentace of Lecithin in Body Tissues

	Percentage of Lecithin.	
Tissue.	In Dry Matter.	Total Phosphorus.
Pancreas	5.0	12.
Muscle	5.0	15.
Kidney	8.0	25.
Liver	10.0	26.
Brain	27.0	73.

The brain, both relatively and absolutely, is richer in lecithin than are the other tissues. The adrenal, which is not given in this table, comes nearest with 12 per cent. of lecithin. The term "lecithin" is here used collectively and designates a group of phosphorized fats with the properties of colloids now coming to be grouped under the more general term "phosphatids."

In studying the brain, therefore, in conditions of exhaustion it is necessary to determine not only its total but also its lecithin phosphorus content. Also on ac-

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* From the Laboratory of Bio-Chemistry and Pharmacology, University of Chicago.

[1] James: Psychology: chapter on Habit.

[2] Proc. Conn. Med. Soc., 1869. Reprint kindly loaned by Dr. L. B. Mendel.

count of the relative crudity of chemical methods it becomes necessary to study the brain under very extreme conditions of exhaustion in order to insure the greatest chance of discovering differences. With regard to the daily requirements we know very little, but all indications go to show that the metabolic activity of the brain is not great.

Two mental diseases are known which represent the extreme stage of exhaustion at which the nervous system may arrive:

1. General paralysis of the insane, in which a frequent cause of death is sheer exhaustion supervening on a large number of seizures. In this disease we also have an actual destruction of nerve tissue that can be demonstrated anatomically.

2. Dementia præcox, which in its severe or hebephrenic type also runs a fairly rapid course, so that we very often find that a comparatively intelligent young man will in a few years come to a state in which he loses all initiative and sits day-dreaming, dribbling saliva for days and weeks without the mental energy to make the least effort. In this disease no very large amount of actual destruction of nerve tissue can be demonstrated anatomically.

In the following table two normal brains are compared with brains from a case of each one of these two diseases, picked out from a large list:

TABLE 3.—COMPOSITION OF BRAIN TISSUE IN NORMAL AND DISEASED BRAINS

	Normal. Age 16.	Dementia Præcox. Age 17.	Normal. Age 43.	General Paralysis. Age 44.
teins	37.1	39.0	38.0	39.1
poids	52.0	51.6	52.0	50.8
tractives and Ash	10.9	9.4	10.0	10.1
Total Phosphorus	1.50	1.47	1.50	1.44
Lecithins	27.3	27.8	27.0	24.8

There is practically no difference between the lecithin content of the brain in dementia præcox and that in health, while in general paralysis there is a slight decrease in total phosphorus and a larger one in lecithin phosphorus. Even the latter, however, is nothing like what one would expect, considering the severity of the disease; indeed, not all cases of general paralysis show as much change. The actual amount of lecithin lost is not indicated in the above figures, which are relative; but on account of the inability of the central nervous system to regenerate, this could not be replaced in any case. We come, therefore, to the rather surprising conclusion that even in extreme states of exhaustion the brain is plentifully supplied, not only with phosphorus, but also with its special form of phosphorus, namely, lecithin. Such results as these might indicate that chemical methods are not capable of detecting differences of physiologic significance and consequently are to be discredited. That such is not the case I shall have occasion to demonstrate in reporting a case of dementia præcox in a subsequent article, in which very marked chemical differences of another kind, which distinguished this subject from the normal, will be described. Furthermore, that those methods are capable of detecting differences when such differences exist is well illustrated in Table 4, where the brains at different ages are compared.

Table 4 indicates that the brain does change in composition as well as weight until adolescence; after that, however, the variation is within analytical errors. For its growth the brain requires, therefore, among other things, about 42 grams of protein, 135 grams of lipoids, of which 66 grams are lecithin and 3.35 grams phosphorus. This, of course, takes into consideration only that which is actually built up into tissues. Much more is really used. The attempts to supply this demand have led to the introduction into practice of a number of commercial preparations, some of which I will review:

TABLE 4.—VARIATION OF THE BRAIN DURING GROWTH

Case:	At Birth. No. 13.*		Sixteen Years. No. 20.*		Forty Years. No. 70.*	
Wt. of Brain:	640 Grams.		1,440 Grams.		1,400 Grams.	
	%	Grams.	%	Grams.	%	Grams.
Solids	11.2	71.68	21.2	305.28	23.0	322.0
Proteins	46.6	33.40	37.1	113.26	38.0	122.36
Lipoids	33.1	23.72	52.0	158.74	52.0	167.44
Extractives and Ash	20.3	14.56	10.9	33.27	10.0	32.20
Total P.	1.72	1.23	1.50	4.58	1.50	4.83
Lecithins	24.2	17.3	27.3	83.3	27.0	86.9

*The subject in Case 13 died at birth. In Case 20 the subject was a boy employed in hotel. In Case 70 the subject was a physician.

1. Hypophosphites: Calcium hypophosphite, N. F., p. 24: Dose 0.5 gm.; three doses per day (1.5 gm.) would represent at a maximum 0.5 gm. of phosphorus a day. Folin gives the daily phosphorus output at about 1.5 to 2 gm. So at best this would only represent an addition of 33 per cent.

2. Elixir glycerophosphatum, N. F., p. 44: Dose 4 c.c.; three doses per day (12 c.c.) would represent at a maximum .05 gm. of phosphorus a day, an addition of 3 per cent.

3. An organic phosphoric acid combination has recently been obtained from the bran of wheat and a number of vegetable substances. It is not yet very generally used. Mendel[3] has shown that this substance when taken by the stomach is completely converted into phosphate and excreted as such in the urine shortly after ingestion.

4. Lecithin: On account of its presence in large quantities in brain tissue this might be the most rational substance to use, provided it could be demonstrated that it reaches the brain. On account of its cost the dose of this substance when recommended commercially is quite small, from 0.1 to 0.3 gram. We ingest daily with our food about 5 grams of lecithin, which by the addition of two eggs can easily be raised to 10 grams.

A number of other compounds and combinations have been recommended, and there will no doubt be an addition to the list as new phosphorus compounds are discovered. The significant thing about all these substances is that they represent, with one exception, an insignificant addition to the daily phosphorus diet. If we wished to overfeed a person on nitrogen we would at least double his daily consumption and not be satisfied with an addition of 33 per cent. as a maximum. The recent work of Hart[4] is also significant as showing that even in extreme phosphorus starvation the tissues will keep their supply of phosphorus constant at the expense of the bones.

We may summarize the results of these experiments in the following conclusion:

1. There is no evidence of any need to supply phosphorus to the brain in conditions of exhaustion, as a lack of that element has not yet been demonstrated. The actual amount lost in the exhaustion of general paralysis can not, of course, be replaced on account of

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[3] Am. Jour. Physiol., 1906, xvii, 75.

[4] Am. Jour. Physiol., 1908, xxiii, 246.

the inability of the central nervous system to regenerate.

2. The phosphorus required for the growth of the brain is amply supplied by the phosphorus of our daily diet. If desired, the addition of phosphorus-rich foods, such as eggs, sweetbreads (pancreas), liver, and some meats, can be made to meet further requirements, and will far exceed in amount the phosphorus obtained in less natural form from the prescribed doses of any of the various drugs in commercial use. The use of such foods is, however, limited by their richness and their tendency, on account of their rich fat content, to interfere with gastric digestion.

3. As far as the nervous system is concerned, the addition to the diet of commercial phosphorus compounds, such as hypophosphites, glycerophosphate, phytin, lecithin, etc., is to be discouraged because, in the first place, there is no conclusive evidence that they have any effect on the growth of the brain, and, second, the amount usually recommended means only a very insignificant addition to the amount of phosphorus (even in its special forms such as lecithin) taken with the daily food.

RELATION OF ANOMALOUS RENAL BLOOD VESSELS TO HYDRONEPHROSIS

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SURGICAL CONSIDERATIONS

My attention was first called to the relation existing between anomalous blood vessels and intermittent hydronephrosis some six years ago, while I was exploring the pelvis of a kidney which was bound down by adhesions producing a kink in the ureter. The ureter was separated just at the pelvis of the kidney, and all the tissues concerned outside of the ureter were divided without previously catching them in forceps. The result was a very smart hemorrhage which was difficult to control because the artery in this case, one of two, came directly from the aorta. The vessel was about the size of the radial. After this, in operating for such conditions, the ureter was separated and any tissue present was carefully inspected before division.

It is a significant fact that in twenty out of the twenty-seven cases of hydronephrosis herewith reported anomalous blood vessels were present, and the obstruction in each instance was at a point where these vessels crossed the ureteropelvic juncture. The vessels passed to the lower pole of the kidney a little to one side of the midline, and varied from the size of a knitting needle to that of the radial. In all but two the arteries came from the renal, sometimes passing in front and sometimes behind the ureter, but in either of these positions the pressure of the artery on the ureter or adhesions between the vessels and pelvis seemed quite capable of developing the kink. In a few of the cases adhesions between these vessels and the margins of the pelvis were responsible for the obstruction.

I have no doubt that many patients have been operated on without recognition of the rôle played by such anomalous blood vessels and that these vessels were separated, tied and divided by the operator without his attention being called to the exact condition.

Admitting the possibility of error as to the actual nature of the obstruction, or that we have in some instances overestimated the importance of the vascular anomaly, there is no getting away from the fact that such blood vessels were present and abnormal. In nearly every case it was possible to prove absolutely the etiologic relationship of the blood vessel to the kink.

In our series no patient was accepted for operation in whom the kidney pelvis did not easily contain 50 c.c. or more of fluid, and in the greater number of them the pelvis had a capacity of from 60 to 180 c.c. or more.

The kidney was exposed by an oblique incision parallel with the *quadratus lumborum* muscle, extending high up into the costovertebral angle, avoiding the ilio-inguinal and the iliohypogastric nerves. If necessary, the twelfth rib was divided behind the erector spinæ muscle. In doing this the pleura was sometimes opened, but such accidental pleurotomy, in which the lung was easily seen, did not result in pneumothorax or any other ill effects, if the patient was lying face downward during operation.

The kidney was drawn well out on the loin and the ureter isolated next to the pelvis from the posterior side. Careful dissection revealed the blood vessels, if they were present. In 12 of the 27 cases it was considered wise to enlarge the ureteropelvic juncture by a plastic operation in addition to the division of the blood vessels which were present in 7 of the 12. In 9 the operation was that proposed and carried out by the late Christian Fenger, whose early description of valve formation of the pelvis of the kidney is classical.

We found that the easiest way to accomplish this procedure was to open the dilated pelvis half an inch above the ureter, passing a grooved director down into it. The strictured portion was then split for three-fourths of an inch in length, half on the ureter and half in the pelvis, and closed by plastic suturing with No. 1 catgut through all the coats after the plan of the Heinke-Mikulicz interrupted sutures pyloroplasty. Such fat and fascia as lies in the neighborhood connected with the pelvis was raised as a plastic flap, planted across the line of union and held in place by a few catgut sutures.

After the uteropelvic sutures had been placed the union sometimes looked unreliable, as though leakage might occur, but in our experience if the suture line was properly covered with this fatty fascial flap there has been no leakage. Before using this latter device, in two cases following operations, there was leakage of urine. One leaked for ten days, and a second, a large infected hydronephrosis, for seven weeks, but with spontaneous healing in each instance.

In three of the patients with very large hydronephrotic sacs, the ureter was completely detached, its end split for half an inch like a cuff, and then reimplanted into an opening made in the lateral wall of the pelvis, using the two-row interrupted suture method with No. 1 catgut, much like gastrojejunostomy. This was covered with the fatty fascial flap previously described. Primary union took place in all three.

After the plastic operation the kidney was anchored in such position as to keep the site of union without tension or bending. Folds of rubber tissue were used for drainage, never gauze.

In two large infected hydronephroses the remnant of the kidney was removed with the sac.

CLINICAL CONSIDERATIONS OF INTERMITTENT HYDRONEPHROSIS CAUSED BY ANOMALOUS RENAL BLOOD VESSELS

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Cases of hydronephrosis are usually grouped under two anatomic headings: congenital and acquired.

CONGENITAL HYDRONEPHROSIS

In the light of recent investigation the number of cases in the congenital class has become much larger than that of cases in the acquired. The etiologic congenital conditions commonly observed are (1) anomalous renal blood vessels; (2) atresia of the ureter near the renopelvic juncture, and (3) displaced kidneys.

ACQUIRED HYDRONEPHROSIS

The non-congenital conditions which may be found in the urinary tract causing renopelvic distention are (1) strictures following inflammatory and traumatic lesions, (2) stones partially occluding the tract, (3) tumors within the urinary tract or exerting extraneous pressure on it. Thus it will be seen that there is a large number of causes for and conditions in which hydronephrosis in the broad sense of the term may be found.

These various etiologic factors have been observed, however, to a great extent at postmortem examination. The observations at autopsy differ quite widely from clinical and surgical reports. Morris quotes the Middlesex Hospital Reports to the effect that almost 90 per ent. of the cases of hydronephrosis found at autopsy ere due to extraneous pressure of abdominal tumors. On the other hand, Israel reports but one of his series of forty cases in which operation was performed for hydronephrosis as due to extraneous tumor pressure.

On reviewing the list of operations for hydronephrosis performed by Drs. W. J. and C. H. Mayo at St. Mary's Hospital, one is impressed with the number of cases in which anomalous blood vessels were found to be the only visible cause of renopelvic distention.

Of the 27 cases of definite hydronephrosis collected from the operation records, 20 were due to such blood vessels. To prove that these blood vessels were the cause of the hydronephrosis it was shown that in 13 of these 20 cases, severing the anomalous vessels sufficed to remedy the condition.

It is only within the last few years that our attention has been called clinically to the comparatively frequent existence of hydronephrosis. Patients frequently appear complaining of intermittent attacks of pain in the upper lateral abdomen the causes of which have remained unidentified for years. The condition has been regarded variously as a diseased condition of the appendix, gallbladder, pelvic organs, or as a renal or ureteral lithiasis. With these various diagnoses surgeons have repeatedly opened the abdomen only to find a hydronephrotic kidney, or to overlook the underlying condition entirely. The patient frequently appears with the appendix removed, but with no cessation of symptoms. While it is often difficult to distinguish intermittent hydronephrosis clinically from some diseases of the neighboring organs, nevertheless the condition presents certain clinical data which are very suggestive.

DIAGNOSTIC DATA—SUBJECTIVE

Age.—The symptoms usually manifest themselves in the young adult at about the time when the body has reached its fullest growth, a fact which is strongly suggestive of congenital etiology. The average age at which the symptoms commenced was 22 years. Most of the patients, however, had had their trouble a number of years, ranging from one to twenty.

Attacks.—Intermittent hydronephrosis manifests itself by attacks of acute abdominal pain. The frequency of attack is variable, appearing at intervals of a week or two to years, although the usual interval is a month or two. In several instances patients with long-standing trouble complained of a steady ache continuing between the acute attacks. The onset is usually sudden, although some patients give a history of premonitory ache in the affected side. The attacks frequently come on toward evening, and often after some unusual exertion. In twelve cases the right side was affected, and in eight the left side. There is no evident reason why one side should be oftener affected than the other All the patients except three referred the pain to the upper abdominal quadrant and to the back near the costovertebral angle. In nine of the cases the pain was referred to the lower quadrant as well, and in one case to the lower quadrant alone. As a rule the pain is not referred along the course of the ureter as distinctly as in a kidney or ureteral stone, but remains localized. It is usually acute for hours, and a soreness in the affected side may continue during a day or two following the attack. The pain is not, as a rule, as acute as in that attending gallstone and kidney-stone colic. Again, the pain may be absent in the affected side, the condition remaining latent until the retention becomes so great that the patient notices a tumor in the abdomen. The non-affected side may also be the seat of some pain, which is usually due to the engorgement of the normal kidney as the result of a compensatory hypertrophy, although the possibility of a bilateral hydronephrosis is always to be considered.

In women, as a rule, the attacks appear independent of menstruation; in fact, if the patient states that they usually come on at the menstrual period one might suspect either pelvic trouble or neurosis.

Gastric Symptoms.—Gastric disturbance is frequently quite prominent, vomiting or nausea accompanying the attacks in nearly every case; in fact, one patient complained only of stomach symptoms, but with closer investigation it was discovered that he also had pain referred to the lateral abdomen accompanying his gastric disturbance.

DIAGNOSTIC DATA—OBJECTIVE

In many cases of intermittent hydronephrosis the objective symptoms are of little value. Where there is more or less permanent distention of the sac, however, the tumor may be palpable in the upper abdominal quadrant and kidney zone. This is so in about a third of our cases. The mass has a distinct cystic soft feel, and with one hand on the back may be palpable through the abdomen with gentle pressure. In several instances the tumor was quite easily palpable one day and the next could be scarcely felt, the variation in the size of the sac being, of course, dependent on the degree of obstruction to urinary drainage. If the tumor is palpable as a cystic mass, occupying more or less of the upper abdominal quadrant, it will probably have but little secreting substance left.

Slight tenderness on pressure over the kidney area was complained of by a few of the patients, in marked distinction to the tenderness of an inflamed appendix. Marked renal dystopia and scoliosis was not noticed in the series of cases; in fact, no pronounced congenital anomalies were noted in any case excepting one in which the kidney was found to have two distinct pelves and ureters. One pelvis was hydronephrotic and the other was normal.

X-Ray Examination.—*X*-ray examination in itself is of no value in diagnosis unless the kidney shadow can be made definite enough to bring out the outline of the kidney. It can be employed to some advantage, if there is any doubt after the cystoscopic examination, by combining the two methods.

Argyrol and bismuth solutions have been injected into the pelvis and radiographs made to demonstrate the size of the pelvis. The ureteral catheter may likewise be radiographed as it lies coiled in the dilated pelvis. The data acquired from pelvic distention as described below, however, are much simpler.

DIFFERENTIAL DIAGNOSIS

1. *Appendicitis.*—Strange as it may seem, the condition with which intermittent hydronephrosis is most frequently confounded is appendicitis. About one-fourth of the patients in our series had their appendices removed previously. Many others had been told that their symptoms were due to appendicitis and were advised to have the appendix removed. Hydronephrosis is differentiated by (1) location of pain, which is higher up and is referred usually to the costovertebral angle, (2) intermittence of attacks, (3) absence of fever and prolonged prostration, (4) absence of marked tenderness over the appendix, (5) presence of pus in the urine, and (6) cystoscopic findings.

2. *Gallstones.*—The confusion of this condition with hydronephrosis is possible if the pains are localized below the right costal margin and if accompanied by gastric symptoms. Gallstones may usually be differentiated by (1) the fact that the pain is referred more to the pit of the stomach, radiating thence to the back, (2) the more irregular periodicity of attack, (3) the fact that this is more pronounced with constant nausea and vomiting, (4) the fact that the attack, as a rule, is more acute, (5) the more rapid onset and disappearance of pain, and (6) icterus. If the symptoms of gallstones are doubtful and the pains are referred below, however, it is advisable to examine the urine carefully for pus and to measure the size of the renal pelvis.

3. *Nephrolithiasis.*—Hydronephrosis and renal calculi will frequently be manifested by similar symptoms. The location and character of the pain, intermittence of attack and accompanying gastric symptoms may all be similar. The history in cases of calculus does not, as a rule, however, extend over so long a period of time, nor is there such frequent occurrence as with hydronephrosis. Furthermore, lithiasis is to be differentiated by the facts that (1) the symptoms are usually more severe, (2) there is a history of blood in urine, (3) the microscopic urine examination usually shows a few blood cells. After all, the radiograph is the essential method of diagnosis of lithiasis, and when checked by the ureteral catheter is about infallible.

Pancreatic and ovarian cysts may, in exceptional cases, be confused with a latent symptomless hydronephrosis, since a large hydronephrosis may extend to the center of the abdomen, and a pancreatic cyst may, on examination, give a similar "through-and-through" feel. The clinical symptoms, as a rule, suffice to differentiate the conditions, while the reno-pelvic distention establishes the diagnosis.

URINARY DATA

1. *Subjective Urinary Data.*—These are of comparatively little value, as but few of the patients complain of even the slightest bladder irritation. In several cases it was possible to obtain a history of diminution in amount of urine just preceding and during the attack with a polyuria following. The polyuria is probably due more to the reflex inhibition of secretion in the unaffected kidney rather than to occlusion of the contents of the hydronephrotic sac and its consequent liberation. In one case a large hydronephrotic sac was distinctly palpable, which on pressure would decrease in size and the patient would immediately urinate a quantity of fluid of low specific gravity containing pus cells. Gross blood was not reported in any of the series of cases.

2. *Microscopic Examination of Urine.*—The urine is not usually distinctly purulent on macroscopic examination. Microscopic examination will, however, reveal pus cells in the urine, though it may require repeated examinations to demonstrate their presence. The number of pus cells varies continually; they may even be absent for a period depending to a great extent on the drainage. Their presence is of much more importance than that of casts, of which there are usually but a few present. Blood cells are not often found, although in three cases a few were present. In several cases no pus cells were found in the mixed urine, whereas in the specimen obtained by ureteral catheterization the urine of the affected kidney showed a considerable number of pus cells.

3. *Phloridzin Test.*—An attempt was made in five cases of hydronephrosis to ascertain the functional capacity of the two kidneys by means of the phloridzin test. In every case the sugar remained absent from the urine in both kidneys for an hour after injection—a peculiarity of secretion in cases of hydronephrosis in which Albarran was first to call attention.

4. *Cystoscopic Examination.*—In some cases intermittent hydronephrosis can be diagnosed with comparative certainty from the clinical picture, particularly if the kidney tumor is distinctly palpable. Nevertheless, since renopelvic distention is frequently not definitely palpable, and since the symptoms simulate those of various renal conditions, a more exact method of diagnosis should be employed. This is given us in cystoscopic examination, including ureteral catheterization and measurement of the size of the renal pelvis.

The bladder mucosa is usually normal in appearance unless some local cystitis should incidentally complicate it. The ureteral meatus next attracts our attention. In about half of our cases it was found long and more or less pendulous. The ureteral peristaltic contraction about the meatus is usually indistinct and the urine dribbles or comes with an occasional weak spurt. The whole is suggestive of lack of tone, in contradistinction to the hyperirritable meatus one frequently sees with a stone in the lower ureter. Still, too much stress should not be laid on meatoscopy, for its findings are often misleading.

A catheter is next slipped into the ureter and slowly passed up toward the renal pelvis. In about two-thirds of the cases more or less obstruction was encountered near the ureteropelvic juncture. With but one exception it was possible to slip the ureteral catheter by the obstruction and enter the renal pelvis. Although it is impossible definitely to differentiate the character of the obstruction caused by the stone from that of constricting anomalous blood vessels, still the former obstruction is abrupt, and a grafting may be palpable, while the latter, which is smooth, may give way on a little pressure.

Whereas in the normal ureter and pelvis the ureteral catheter can be inserted to a length of from 30 to 40 cm., the dilated pelvis will permit 50 cm. or more to be coiled up within itself. The only exception to this was noted in a case in which the obstruction of ureteropelvic juncture was so great that a catheter could not be passed by it. The obstruction is usually felt at a length of from 20 to 25 cm. of catheter, however, and is easily pushed by. Below the obstruction it will frequently happen that little or no urine will come through the catheter. As soon as the obstruction is passed the urine will usually run freely with a steady drip and without the ureteral contraction. An ounce or so of fluid will frequently drop away without peristaltic hesitation. A similar rapid secretion is, however, sometimes observed with the nervous hypersecretion of oversensitive individuals, in whose cases the urine may flow incessantly for a long time without any ureteral contraction. The urine thus collected is extremely pale and will, in most cases, show at least a slight turbidity on close inspection. Such turbidity may be due to pus, but in some cases it is due to phosphates which frequently are precipitated in the more or less alkaline residual urine. The urine so-called may appear clear on inspection, and yet there may be enough pus cells in it to determine an infected condition. Therefore, a microscopic examination is necessary in every case. After collecting sufficient urine for examination and letting enough urine run out to empty the hydronephrotic sac, at least partially, the next step is to determine the degree of pelvic dilatation.

Pelvic Distention.—Kelly first called attention in this country to the fact that if the pelvis of the kidney is overdistended an artificial renal colic is produced. This fact is taken advantage of to measure the size of the renal pelvis. The normal pelvis will hold from 5 to 15 c.c. before pain is caused. At times the otherwise normal pelvis will be distended to 30 or even 40 c.c. before the patient complains of any definite pain. This occurs usually in more or less hysterical subjects and may possibly be explained by an hysterical anesthesia similar to that observed in the cornea or pharynx. After the pelvis has been partially drained one should be able to inject at least 50 c.c. of fluid into the renal pelvis before pain is caused, to determine an abnormal dilatation.

The distending fluid is colored with methylene blue to determine whether there is any return flow alongside the catheter. This return flow is, as a rule, not present to any noticeable extent, but if markedly so will negate the value of the findings.

After the degree of dilatation has been determined, the injected fluid is allowed to drain partially through the catheter. It escapes with a steady flow resembling that of a syphon and without any expulsive force. The amount of fluid injected before pain is produced varies, of course, with the degree of renal dilatation. In several cases 200 c.c. were injected without causing pain. If more than 150 c.c. can be injected but little secreting substance remains in the affected kidney.

The typical cystoscopic findings in hydronephrosis would consist of (1) an occasional weak spurt of urine from the pendant meatus, (2) a slight obstruction to the catheter near the ureteropelvic juncture, (3) about 50 cm. of catheter inserted into the ureter and pelvis, (4) a rapid drainage through the catheter of a pale urine containing a variable amount of pus, (5) at least 40 c.c. of fluid injected without return flow before producing renal colic.

SUMMARY

The frequency with which a type of renopelvic distention is observed, caused by anomalous blood vessels constricting the upper ureter and characterized by intermittent attacks of abdominal pain, is so marked that the condition deserves to be considered as clinically distinct at least, if not anatomically so. The diagnostic data are:

1. Appearance of symptoms in the young adult.
2. Intermittent attacks of abdominal pain referred to the kidney zone and occurring with more or less regularity during a number of years.
3. Cystic tumor palpable in about a third of cases.
4. Presence of small amounts of pus in urine.
5. Usual absence of hemorrhagic urine, temperature and bladder irritability.
6. Cystoscopic findings as outlined above.

RELATION OF ANOMALOUS RENAL BLOOD VESSELS TO HYDRONEPHROSIS

WILLIAM CARPENTER MAC CARTY, M.D.

For many years both extensive and mild grades of hydronephrosis have been observed at autopsy, and extensive grades have been seen at operation. These latter observations, however, were usually made in cases in which the original pathologic condition has been marked by further changes, such as adhesions, distention of the pelvis and kidney. In many of them it was impossible to determine the exact etiology.

Since the early experience of Dr. Mayo in encountering a severe hemorrhage during separation of adhesions, which may or may not have been the sole factor in the production of the hydronephrosis, our attention has been drawn to the vessels which he so frequently encountered extending from the aorta or renal vessels to the lower pole of the kidney.

These observations led to a careful study of the relation of the vessels to the obstruction in the ureter.

Irregularities of the renal arteries are encountered in about 25 per cent. of dissected bodies (Quain). Of these Quain states that branches of the renal artery, or an accessory artery, instead of entering at the hilus, sometimes reach and penetrate the gland near its upper or lower end, or on its anterior surface.

Such anomalies we have found also at operation, but associated with distention of the kidney pelvis which had been previously diagnosed by artificial distention

In some cases it is impossible to determine whether the anomalous vessel was from the aorta itself or from the renal on account of the limited field of operation.

During the last year in four of the cases described by Drs. Mayo and Braasch, I made sketches during operation. In these cases the vessel ran anteriorly to the ureter and entered the lower pole (see illustration). In about 75 per cent. of all of our cases this was true.

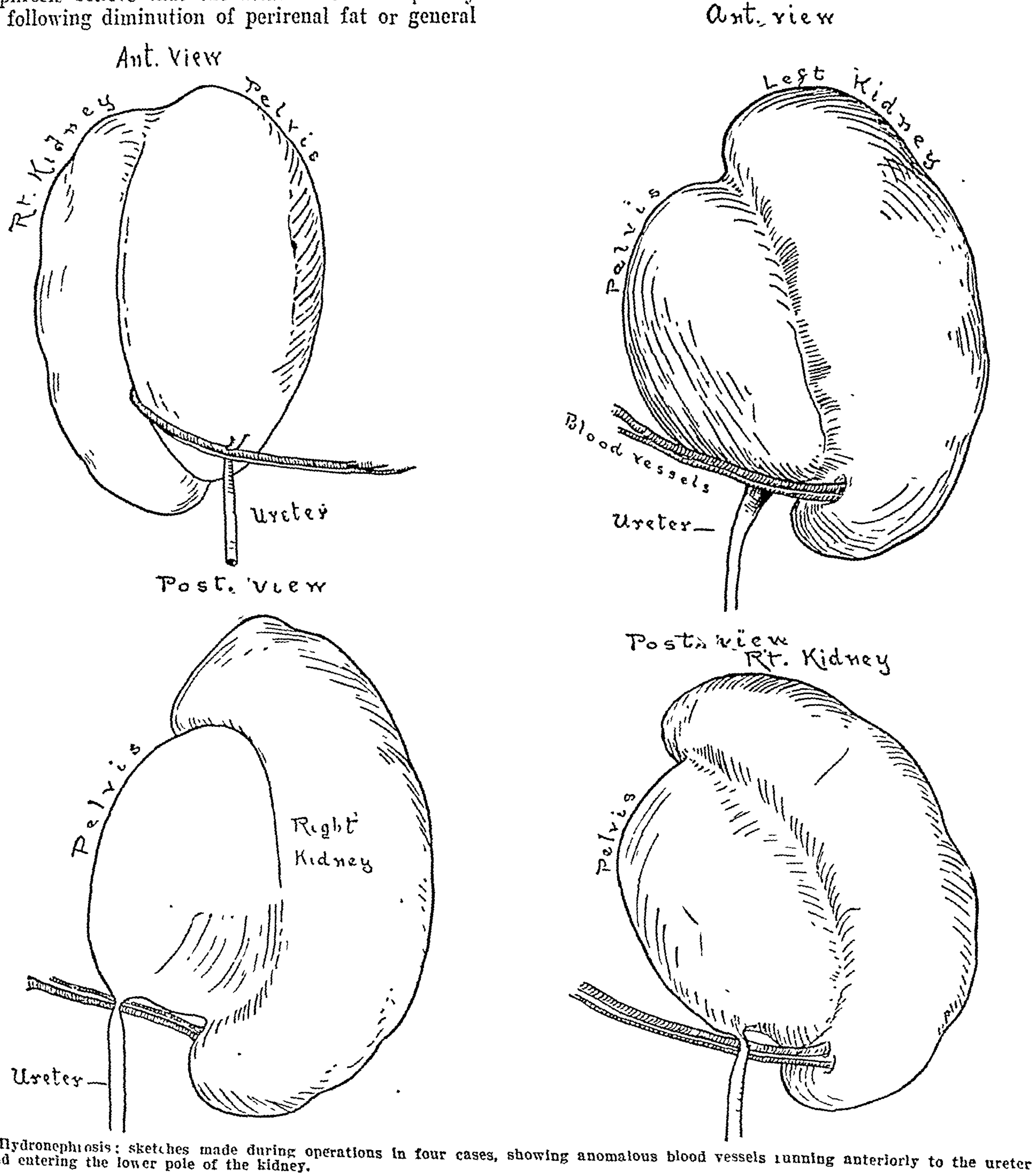
Merkel describes early cases of hydronephrosis at autopsy in which the vessels were also posterior to the ureter.

Ekehorn, in twenty-five cases of hydronephrosis, found the accessory vessels anterior to the ureter in 64 per cent. and posterior in 28 per cent.

The pathologic sequence in cases of hydronephrosis associated with anomalous vessels seems to be dependent on some other factor than the anomalous vessel—that is to say, anomalous vessels in the kidney occur in a larger percentage of normal kidneys than in kidneys showing hydronephrosis.

There is some reason for the sagging of the kidney, thus allowing the ureter to come in contact with the vessel, which normally is usually not in contact with the ureteropelvic juncture.

Most of those who have studied the condition of hydronephrosis believe that the attacks not infrequently occur following diminution of perirenal fat or general laxity of the abdominal organs after pregnancy or illness.



Hydronephrosis: sketches made during operations in four cases, showing anomalous blood vessels running anteriorly to the ureter and entering the lower pole of the kidney.

We do not know how much this factor is responsible for hydronephrosis, but the fact remains that the anomalous vessels form a suspension bridge over which the ureter hangs. Whether the point of contact of the ureter with the vessel is at the normal ureteropelvic juncture is difficult, perhaps impossible, to say.

At the point of suspension the ureter is bent on itself, thus forming a kink. As the angulation of the bend becomes more acute the inner wall of the approximating sides of the ureter form a valve, the *Klappenmechanismus* of the German.

Around the vessels and ureter adhesions are usually found. These are not marked and do not obscure the relation of vessels to the formation of the kink in mild cases.

Not all pathologists and surgeons believe that a vessel ventrally placed in relation to the ureter can cause hydronephrosis, but all agree that a vessel dorsally to the ureter may cause such a condition.

The facts remain, however, that mild grades of intermittent hydronephrosis clinically occur, and at operation show distention of the pelvis, a kink in the ureter, an anomalous blood vessel anterior or posterior at the point of kinking, extending from the renal vessel or aorta to the lower pole of the kidney. After ligation and section of the vessel the cases do not show any tendency to recurrence of the condition.

Note.—The following references may be found of interest on this subject:

1. Fenger: Konservative Operation für renale Retention infolge von Stricturen oder Klappenbildung am Ureter, Arch. f. klin. Chir. (Langenbeck's), 1900, lxii, 528.
2. Ekehorn: Die anomalen Nierengefässe können eine entscheidende Bedeutung für die Entstehung der Hydronephrose haben. Arch. f. klin. Chir. (Langenbeck's), 1907, lxxxii, 955.
3. Merkel: Die Hydronephrose und ihre Beziehung zu akzessorischen Nierengefässen, Virchow's Arch. f. Path. Anat., 1908, cxci, 534.

ANKYLOSTOMIASIS IN MEXICO AND ITS DIAGNOSIS

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Before the war with Spain ankylostomiasis was a disease almost unknown to American physicians, although in the literature of the South reports of "dirt-eating," accompanied by a severe anemia, can be traced as far back as 1808. The war brought the responsibility of making Cuba, Porto Rico and the Philippines habitable, and the fascinating new science of tropical medicine came to the fore in this country. The sanitation of the Canal Zone and the banishment of yellow fever from Havana has called the attention of the world at large to this subject and to the men who have accomplished so much in so short a time. The great work of Stiles, with the identification of the *Uncinaria Americana* and demonstration of its prevalence in the Southern States, and the investigations of Herbert Gunn and others in California, which show that almost all the common tropical diseases can be studied in San Francisco, gave a great impetus to the study of these diseases. American physicians now realize that they must more frequently examine the stools of patients and inquire for a history of residence in the tropics. Sir Patrick Manson, on his visit to California four years ago, urged the need of special schools for tropical medicine in this country.

Granting, then, the importance of this subject in the United States, it may be of interest to the physicians of California, Arizona, New Mexico and Texas, especially, to know that across the border there are endemic foci of ankylostomiasis; also that as soon as the Mexicans learn a little English they desire to get across the line to higher wages.

Besides a few isolated reports of this disease seen in natives of Mexico I can find only one paper[1] on this subject in English, that by Dr. Ricardo E. Manuell, who has been carrying on a campaign of instruction in this subject since his discovery of the disease in the City of Mexico in 1902. In answer to my request for a reprint of his article, with true Spanish courtesy he sent me marked copies of the journals containing the Mexican literature on the subject.[2]

So far cases have been reported from almost all the most southern states (Mexican)—from the Isthmus of Tehuantepec and Yucatan to the states just above the City of Mexico. No cases have yet been reported from the immense northern states of Coahuila, Chihuahua, Sonora and Durango. As these states have a more temperate climate and severe winter, owing to their great altitude above sea level, the ankylostoma may never get hold on the higher plateaus. A careful watch for nearly two years has not been rewarded, so far, by a single case from Sonora, the large state adjoining Arizona, and I have to report my cases from Lower California and from Sinaloa, a state that forms a good part of the western seaboard. The discovery of the great prevalence of the disease in Lower California is of importance here because most of the people of northern Sonora have come from the mines of Santa Rosalia, in that peninsula, and they are the people who are now crossing into the United States. It is also of interest to note that railroads are being rapidly extended along the western seaboard, and Guaymas, where the disease is undoubtedly prevalent, is but a day's journey from Tucson, Arizona.

Dr. Manuell states that all the worms observed so far in Mexico are of the old world type: he believes that the parasites were introduced by foreign miners and have since been spread by the floating mining population. He thinks that sanitary regulations aimed at the disease should be inserted in the mining code. The mining camp privy is often an old abandoned tunnel, and as there is frequently a little stream of water running out of these tunnels, the conditions for the spread of the disease are ideal.

I had expected to find the new world species, but a careful examination of almost all my specimens shows only the *ankylostoma duodenale.* These are very large; they have two pairs of curved hook-like teeth; the vulva is situated about the posterior third of the body, and the caudal bursa of the male has the dorsal ray only partly divided.

The diagnosis is the most important thing, because once it is made the worms are far easier to remove than are most tæniæ. Whenever the diagnosis of a complaint in a patient from the tropics is not perfectly clear, and often when it seems to be easy, a differential blood count is indicated. One of my patients, a woman, had been to the United States and had been treated by several physicians and specialists for an obstinate tinnitus aurium. From her description of the treatment she must have had all the most approved methods used on her ears, nose and Eustachian tubes, but without improvement. As she was a large, stout woman, anemia had probably been ruled out in the diagnosis. I had small hope of helping her after all the special work had failed, but a routine examination discovered a hemic murmur and the differential count showed 18 per cent. eosinophiles. She had been brought up in Lower California and was infected with ankylostoma.

A blood count, to a man who does not make one several times a day or week, seems a great undertaking, and he is sure he could not find time for one, much less for several. A little practice will enable the physician to do a practical blood count while the patient waits, and he will frequently dismiss him much sooner than if he had tried to make the diagnosis by the history and physical examination alone. The physician should always carry with him a box of new slides and an ear lancet; a little vaccination scarificator with all the teeth but one broken off will do. On a convenient shelf in his office should be two dropping bottles, one containing Wright's or Hasting's blood stain and the other distilled water.

After the ear is pricked the hemoglobin may be estimated accurately enough in a moment with the Tallquist scale, and then a thin smear should be made, preferably with the edge of another slide. This should not be held firmly, but should rest on the finger, at the proper angle to the blood slide, which is also slightly inclined. Thus the blood is spread by the weight of the slide and not by the uncertain pressure of the hand, and the specimens are uniform in thickness and in the distribution of the leucocytes. The commonest fault is to take too large a drop of blood.

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[1] 1. Anchylostomiasis in Mexico, Am. Pub. Health Assn. Rep., xxxii, part 1, pp. 201-204.

[2] 2. Besides his own communications, Rev. med., November, 1902, there are papers by Dr. Andres G. Castro, one of his students, Rev. med., September, 1903; Dr. A. Matienzo, Rev. med., January, 1904; and Dr. G. Castaneda y Escobar, Rev. med., April, 1904.

The absolute alcohol in the stain will fix the smear almost immediately, and the dilution with distilled water can be made. In a few minutes this active stain is washed off, the specimen is dried and it is ready for the oil. Half a minute's examination reveals a great deal to the eye that is at all accustomed to this work. It is better to use the mechanical stage so as to run across the smear, taking in both edges where the larger leucocytes concentrate, and where they would otherwise be overlooked.

This quick review will show the presence or absence of anemia, as the erythrocytes will be either well-shaped and full, or pale, malformed, polychromatic or even nucleated. The extent and character of these changes will greatly modify the prognosis. The relations of the whites to the reds should be observed at the same time, and with a little practice in this way one can estimate a leucocytosis almost as accurately as with a blood counter, especially if not in daily practice with that instrument. The practiced eye can tell in a moment if there is or is not a definite leucocytosis. If not, there is generally little to be gleaned from a full differential count. The man with a large practice can not take a full history and make a complete examination in every case, much as he might like to do so, and as he avoids unnecessary work there, so should he do in his laboratory.

Not all laboratory work is of practical benefit, and a large part of it is accessible only to the trained specialist in this branch, this rapid blood examination, however, is of immense value and can be done by any busy physician while he is talking to the patient on his first visit. It will prevent many mistakes and oversights, as is illustrated by one of my cases.

Mr. K. had been working on a railroad in the state of Sinaloa and was being treated for what seemed to be a fairly typical case of typhoid fever. A blood smear showed severe anemia with nucleated reds; there was also a marked leucopenia. The latter finding indicated typhoid but the discovery of estivoautumnal signet rings and crescents corrected the diagnosis. With appropriate treatment the patient was soon up and about. While the blood was being watched every few days for the final disappearance of crescents, it was noticed that as the leucocytes reappeared in the circulation, more and more were eosinophiles. When they reached 14 per cent., the stools were examined and ova of the ankylostoma were found in large numbers. Following the progress of the case with the microscope here prevented a serious oversight.

In tropical cases, after the quick review has shown the blood to be normal in most respects, there is no need of a complete differential count, as the important thing is the percentage of eosinophiles. A hundred cells can be quickly run over, noting only eosinophiles, and if the number be less than three, the probabilities are against the presence of intestinal parasites. A count between four and six demands the examination of another hundred and suggests the examination of the feces, while a count over this demands it. This would seem a very repugnant undertaking even to a physician, but the addition of a small amount of formaldehyd solution will soon remove the offensive odor. A small amount of feces should be taken so that it reaches to the edge of the cover-slip when spread out, and makes a thin smear. The condenser should be swung out, the diaphragm opened and the entire specimen should be examined, preferably with a mechanical stage. One should learn to use the 2/3 objective as with the 1/6 too much time would be required to examine the four specimens which should be studied before recourse is had to the concentration of the ova. The main difficulty with the searcher after uncinaria ova is that he is looking for an opaque object, and finds, among other things, stone cells which, with their facets, seem to be ova of some kind. He must look for what seems at first to be a tiny oval clear space in the surrounding, opaque mass. He should swing the 1/6 on this and shut off a little of the light, then he would see *the clear hyaline ring* with the granular segmented center. Text-books are at fault in picturing hookworm ova with almost as heavy shades as are used for the trichocephalus or other ova. Students would be greatly aided by pictures of the eggs shown light on a dark background. A useful axiom in searching for animal parasites and ova is: If there is any doubt, the finding is negative. Nature's work is too perfect to be mistaken.

Many writers on this subject say that when there are very few eggs in the specimen, especially after the expulsion of most of the worms, the ova should be concentrated. A trial of all the methods[2] suggested in the last four years convinced me that even a physician accustomed to this work could do better with the usual smears, because the methods also concentrate the stone cells and other small bodies, and it is almost impossible to distinguish the ova in this rubbish. A recent discovery has solved the problem of cleaning the concentrate, and this method may now be used to advantage by any physician.

C. C. Bass[3] suggests the use of a strong solution of sodium chlorid which will float the ova so that they may be skimmed off. It is difficult to get the specific gravity just right so that it will float the eggs and not everything else. Telemann[4] mixes a small piece of feces with equal parts of ether and hydrochloric acid, and centrifuges after passing through a fine sieve. This will not concentrate very much and the acid is objectionable to handle.

B. B. Bagby[5] breaks up two grams of feces in a pint of water, and allowing five minutes each time to settle, washes the specimen three or four times besides straining through gauze to remove larger masses of undigested food. A little of the precipitate is taken from the very bottom with a pipette and the first drop from this is taken after standing a moment. This is the best way to concentrate the ova as a large amount of feces may be taken. The objection is that the concentrate is too full of small bodies resembling ova. The sedimentation also takes about half an hour. This time, however, need not be wasted. I observed while studying these concentrates that if the cover-slip were touched, everything moved but the ova, so this precedure was an aid to finding ova with the low-power objective, but the more valuable application of this observation did not occur to me.

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[3] Bass, C. C.: Uncinariasis in Mississippi, The Journal A. M. A., July 21, 1906, 185.

[4] Deutsch. med. Wchnschr., Aug. 27, 1908; abstr. in The Journal A. M. A., Oct. 3, 1908, 1193.

[5] A Simple Method of Finding the Ova of Uncinaria, The Journal A. M. A., Jan. 26, 1907, 325.

Pepper[6] makes a most important contribution to this subject in showing that the ova seem to stick to the slide, and everything else may be floated off. He concentrates with the centrifuge and washes six times. The ordinary centrifuge tube holds very little, and it will generally be found more satisfactory to use a pint graduate and the force of gravity. If the centrifuge be used, a very few revolutions are needed for each washing.

I recently undertook a series of experiments in which each one of the reported methods and some combinations were given a thorough trial. The feces used in all the tests were taken from a man who had received a course of treatment and was supposedly cured, as eight ordinary smears showed no ova. Every method showed an ovum or two, but the results were uncertain. The same technic and the same care would at one time reveal a few ova and again none could be found. This is a great disadvantage for the busy practitioner as the results should be worthy of the time spent to obtain them.

A combination of Bagby's method of concentration and Pepper's scheme for cleaning the concentrate gave the best results by far, and some beautiful specimens were secured. The whole concentrate was placed on the center of a slide, and after a moment, the fluid was drawn off, keeping the mouth of the pipette as far away from the slide as possible. Water being added and drawn off again several times, nothing was left but eight or ten ova which could easily have been preserved for class instruction.

Under diagnosis may be mentioned a procedure recommended for physicians who do not possess a microscope; that is, to give a small dose of an anthelmintic and search for the worms in the evacuations. If uncinariasis be strongly suspected and the diagnosis can not be made microscopically, it would probably be better to give the full dose, because an anthelmintic energetically given, with the fasting before and the gastroenteritis after, is a thing the patient is liable to refuse a second time.

The treatment has seen some four periods in which male fern, thymol, chloroform and eucalyptus oil, and betanaphthol have been most highly recommended; but more important possibly than the drug employed is the skill in its administration and the thoroughness of the preparation of the patient. If one wishes to follow his cases carefully, he should have the patient bring the evacuations of the next two days. He will save himself much trouble if he orders that no paper be thrown in the vessel. If the physician do much of this work, his laboratory outfit should include a wire sieve about seven inches in diameter, which can be suspended over a bucket by wire handles which draw out. Such a seive may be found in any hardware store; and with it, the feces can be put under the tap and thoroughly washed. The worms can now be easily seen.

If an eosinophile count be made shortly after a successful treatment, one may be surprised to find that they have not decreased but increased in number. This point has not been mentioned much in the literature but it is constantly seen and is of interest in the study of eosinophilia. It may be due to the fact that in some diseases, such as typhoid, the return of the eosinophiles speaks for a favorable prognosis, and is a sign of recovery. Or it may be that the worms are stimulated by the anthelmintic to excrete more of the toxin which they probably elaborate, and which may be the substance that attracts the eosinophiles. In this connection it would be interesting to note if this increased eosinophilia occurs after an unsuccessful attempt to expel the parasites.

It is also interesting to study the relations of the degree of eosinophilia to the number of worms present. This relation is far from constant, and after a few years, there may be an acquired tolerance to the toxins of this and possibly other similar parasites. A. Hocart Brehaut[7] suggests that the low average eosinophilia observed in ankylostomiasis in Egypt is due to the tolerance that the natives have acquired to the toxins of the *Bilharzia hematobium*.

One often is surprised to see a patient with a very high eosinophilia recover completely after the expulsion of a dozen worms. These must have produced an unusually large amount of toxin, or else the patient was particularly sensitive.

THE SCOPE OF A MATERNITY HOSPITAL AND OF OBSTETRICS AS A SURGICAL SPECIALTY [*]

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While clinical experience is not everything in medicine, it is so much more important than any other single factor in the physician's equipment, that I would hesitate, before a hospital staff with such a large service as that of the New York Lying-in Hospital to express views, or advocate measures, which must have been formed or adopted by all of us in pretty much the same shape to meet the exigencies of our kind of practice. It is profitable however, occasionally to contemplate the present status of any of the broad divisions of medicine, to study critically the achievements of the past, the possibilities and limitations of the present and the probable direction of future progress.

It is to the last particularly, that I shall attempt to call attention. No single branch of medicine is standing still for a moment. The Scotch surgeon and the American obstetrician who, in final addresses to their students in the first half of the nineteenth century, declared that there was nothing more to learn, would be properly humiliated if confronted to-day by the asepsis, the knowledge of bacteria, physiologic chemistry, instruments of precision and operative technic of which they never dreamed; and I dare say our successors will look on us with the same mixture of pity and wonder with which we regard our predecessors.

While the whole art and science of medicine are steadily advancing, it is noticeable that certain branches at times display unusual activity and progress. So-called gynecology—a misnomer, for only a part of the pathologic phenomena peculiar to women was understood by this term—so-called gynecology showed a feverish and precipitate development up to a few years ago. General medicine and general surgery had their turn.

Now, it seems to me, there is an unwonted interest in obstetrics, a more rapid progress than has ever been observed before in this oldest branch of medicine and a more hopeful outlook for the future.

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[6] Jour. Med Research, March, 1908; abstr. in THE JOURNAL A. M. A., May 16, 1908, 1650.

[7] Lancet, London, Aug. 1, 1908.

[*] Read before the Alumni Society of the Lying-in Hospital of New York City, March 9, 1909, at its first annual meeting.

For ages our guild has contended with the difficulties and dangers of parturition itself. Slowly, laboriously, but with an increasing impetus, we have learned how to deal with all of them in one way or another. In recent years the physiology and pathology of conception and gestation have been mastered, with the single exception of the gestational toxemias, but of them we have learned so much that we are on the verge of complete comprehension. Our knowledge of the etiology and pathology of the puerperal infections is fairly complete. In the preventive and curative treatment, however, there is room for improvement.

But where we have been and are weakest is in the recognition and prompt correction of all the pathologic consequences of the child-bearing process that have reduced to invalidism millions of women, who ought to have been as well and sound after delivery as they were before conception. Here is the greatest room for improvement; and this, I am convinced, is the direction of future progress.

The injuries of the genital canal, malpositions of the uterus, pathologic conditions of the broad ligaments and appendages, lack of tonicity in the abdominal walls, enfeebled support of the abdominal viscera, injury of the coccyx, impairment of function in the pelvic nerves, are all diseases which we must trace directly to child-bearing as *the* etiologic factor. But how often does the average practitioner bear these facts in mind in his routine care of child-bearing women? How many of the maternity hospital staffs in this country realize that it is as much a part of their duty to watch for all the immediate and remote consequences and complications of the child-bearing act at all periods, and to correct them in their incipiency, as it is to deliver a woman safely and to guard her against the dangers of immediate infection? To speak well within bounds, it is safe to say, not all of them.

It might be objected that it is utopian to expect so much of institutions merely designed to shelter women during childbirth and for the few days afterwards required to put them on their feet. But it is perfectly practicable to give our hospital patients this kind of care, and moreover so advantageous to the patients, to the institution, and to the physicians in charge that self-interest alone must work in this direction aside from higher considerations. Take the New York Lying-In Hospital, for example. Suppose that every woman cared for in this great clinical service was subjected to as careful a gynecologic examination after labor to detect all the possible injuries of the genital canal as the competent gynecologist would make to establish such a diagnosis in one of his office patients; that every one of their injuries was completely and successfully repaired as they all can be during the puerperium; suppose that every patient was examined about three weeks after the termination of gestation to determine the position of the uterus; that a final examination was made at the conclusion of the puerperium, the end of six weeks, to learn the condition of the pelvic floor, vaginal walls, cervix, uterus, broad ligaments, appendages, abdominal walls, abdominal viscera and the coccyx; and that all the abnormalities thus discovered were appropriately treated without delay. What an enormous gain must accrue to the individual in the preservation of perfect health and usefulness; what a wide-spread influence on the family and therefore on the community must result if the mother is made competent to care for her children, the housekeeper enabled to perform her duties, the wife preserved as a cheerful and uncomplaining companion for her husband! Think of the reputation of the institution dealing thus with large numbers of such cases, its hold on the community, its command of material support, if it is recognized as the source of such blessings to the numerous patients in its beneficent charge!

Finally what opportunity is greater in medicine today than that of the master of the modern maternity hospital? He can truthfully claim to be the only specialist qualified as an expert in all the pathologic phenomena peculiar to women; the only specialist deserving the title of gynecologist. No one else can approach him in command of clinical material, in extent and variety of experience. No one, therefore, can rival him in efficiency. This seems so self-evident that insistence on it seems superfluous. But it must be remembered that it is only in the last decade or so that we have had any maternity hospitals in America properly equipped for all the work that it is their duty to perform. In Europe the great maternities have naturally provided for the treatment of all the pathologic conditions in women; their equipment and their medical officers have undergone the necessary evolution required for the surgical treatment of conditions, the majority of which are traceable to child-bearing. But here, as one of the signs of our newer and cruder civilization, the absurdly illogical system has prevailed of one set of specialists devoting its attention to the act of childbirth itself, but so neglecting its pathologic consequences that another set of specialists had to be developed to do the work properly belonging to the first.

Another argument that should appeal to us forcibly is that the great specialty of gynecology can be rescued from extinction as a specialty in America, if those of us who devote ourselves to it will learn the whole subject in its entirety, as it can be learned in the properly equipped, properly constructed and properly conducted modern maternity hospital, and nowhere else.

Two or three years ago the superintendent of a new general hospital was showing me the building. I asked him what arrangements had been made for a gynecologic department. He replied that there was none. He had investigated the matter, he said, and had found a gynecologist in one of the Boston hospitals removing gallstones and a general surgeon in another removing pus tubes. He could see, therefore, no difference between the two and recommended that the gynecologic work be put in the hands of the general surgeons, which was done.

A story is told of a Philadelphia hospital that on the same day one gynecologist took a stone from a man's ureter and another amputated a leg. It is no wonder that the general surgeon derides the pretentions of the kind of gynecologist we have had in America to a special skill and knowledge of the pathology of woman: a specialist who has learned but a part of his subject and finds his field so limited that he is forced to make excursions into general surgery. But the best solution of this problem is not the absorption of gynecologic surgery by the general surgeon, although I think it would be, if we, who are in charge of the maternities of the country do not undertake the work ourselves. While the general surgeon and the limited gynecologic surgeon are often equally inexperienced in the relations of pelvic and abdominal surgery in women to the child-bearing process with which the condition to be treated surgically are almost always intimately associated, the general surgeon at least has the advantage of broader surgical training.

We should be incapable of making mistakes, the result of limited experience and training. If the gynecologic surgeon has a broad education in all the physiologic and pathologic phenomena of women, experience in the intimate relationship between the diseases of women and the child-bearing process, ability to judge of the effects of various procedures on future conceptions and labors, and a command of clinical material that no one else can equal, not only is the patient safer in his hands, but the progress of gynecologic surgery must be more rapid and more certain.

After all these generalities let us discuss practical details and the application of these principles to the work being done in the New York Lying-In Hospital, if an outsider, who is earnestly interested in seeing the greatest hospital of its kind in this hemisphere fulfill its mission as primate among all the maternity hospitals of America, may be permitted to express his views.

The last annual report of the New York Lying-In Hospital shows that 6,274 women were delivered in the in-patient and out-patient departments. I know from a number of years' experience in this work in Philadelphia, done as I am convinced it ought to be done, that one-fourth of this number required some sort of surgical treatment for the various consequences and complications of the child-bearing process. There ought, therefore, to be provided for this important part of the work, which can not be ignored without shirking an obvious duty, accommodation for 1,500 surgical cases a year in the hospital in addition to the space set aside for the women during child-birth and the puerperal convalescence and for their infants. Allowing an average of two weeks for convalescence from the surgical treatment, which, however, can be considerably reduced in many instances by combining surgical and puerperal convalescence, there ought to be enough beds for about fifty surgical cases at one time. In an institution of this size such an accommodation as this ought easily to be provided.

But I would not stop there. Without special effort and from the material already under the control of the hospital, it can begin with a larger amount of clinical material in the diseases of women than any other hospital in the community. Therefore, the bulk of all this material would naturally gravitate to the New York Lying-In Hospital as it does to the Charité and to the Frauenklinik in Berlin or to the Allgemeines Krankenhaus in Vienna.

In justice to the institution and to the staff, accommodation should be provided for these patients who seek relief from a greater experience and a hence a greater skill than they can find elsewhere. One hundred beds would not be too many as a beginning for this department of the work.

I am aware that this proposition is open to two objections, one that such a space devoted to the treatment of diseases of women might crowd out the patients for whom the hospital was originally intended; the other that the expense of construction and maintenance, if additional accommodation were provided, might be prohibitive.

The answer to the first objection is that additional space should be provided The second objection can not be valid in a community like this, of enormous wealth, scornful of material obstacles, of progressive ideas, responding magnificently to any appeal to humanity, to progress, to civic pride.

A concerted and determined effort on the part of the officers and the alumni would quickly remove this difficulty.

Another objection that I have heard from one of the medical officers is that the women who have been cared for in childbirth by the hospital staff can not be induced to remain in or to return to the hospital for the surgical treatment of the consequences of childbirth. On this point I can again speak from personal experience. A certain proportion of the patients are unable to leave their homes for a sufficient time, or are unwilling to submit to an operation or callously endure discomfort and actual suffering, but this is true only of a minority, and this minority can steadily be reduced in time by persistent effort. It is first necessary to provide adequate dispensary facilities; second, to pay extra visits in the homes of the out-patients at a much later period after childbirth than is customary; and, third, to inculcate in each patient the importance to herself, her added usefulness, her increased ability to work and her greater wage-earning capacity if she keeps herself under medical observation long enough to establish the fact that she is in a satisfactory condition or is put in such a condition by appropriate surgical or other treatment. Finally, each patient so cared for is a missionary among her neighbors, who are impressed with the object-lesson of her superior physical condition contrasted with their own.

All this takes time, but there is a steady and constant progression each year. It would not be long before an institution with the advantages already possessed by the New York Lying-In Hospital would become the greatest center in the country for the study and the treatment of all the pathologic phenomena peculiar to women.

If the opportunity is unimproved, the primacy in this work will probably pass to Chicago, where a frauenklinik is about to be erected and developed, I understand, on the lines I have advocated. I wish I could think it might pass to Philadelphia.

By refusing to be discouraged or rebuffed, by working steadily according to the plan just outlined, I have established a clinical service of more than 2,000 cases a year, which gives me sole control of the largest amount of clinical material in all the pathologic phenomena peculiar to women possessed by any one in my community. From March 1, 1908, to March 1, 1909, I have had in two of my hospital services, the University and Howard, 1,122 gynecologic operations, using that term in its correct sense to indicate all the operations required for all the pathologic phenomena peculiar to women, and this is exclusive of other hospital work and private practice.

My excuse for intruding advice on the conduct of an institution such as the New York Lying-In Hospital must be an earnest interest in the work it is doing, an honest enthusiasm in contemplating its opportunities and a patriotic pride in the wish that the largest and richest maternity hospital in America shall rise above the level of a training school for midwives, as so many of them in this country are, to be at least the equal of any hospital of its kind in the world.

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NATIONAL FORMULARY NOMENCLATURE*

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It is with the utmost reluctance and diffidence that I undertake the task assigned me of criticizing the nomenclature of the National Formulary, a recognized federal legal standard. I have a keen perception of the high ideals, sterling integrity and noble purposes of the members of the committee which compiled this volume, and to comment adversely on the work of men who have had a much larger experience in some lines than I have had, might be considered impetuous impertinence on my part. I feel, however, that it is the duty of every member to point out such defects and shortcomings as come to his attention; otherwise progress would indeed be slow. I further realize that there are few members in the pharmaceutical profession who have been brought so intimately in contact, in a matter-of-fact way, not only with the excellent features of the National Formulary, but also with the shortcomings of its nomenclature, as I have been, and it is some of the information and experience gained during the past few years that I desire to put in evidence.

Many changes have been wrought during the last few years. What was considered permissible to a certain degree ten years ago—yea, three years ago—might be in violation of the present law, and the leading association of the pharmaceutical profession should be in the lead in rectifying such transgressions. The argument is at times advanced that some of the titles may be slightly inconsistent or misleading or even deceptive, yet they have long been in use and for that reason are entitled to recognition. This hereditary argument is interesting but invalid. In this communication I shall utilize largely representative, practical illustrations met in my work.

NAME OF DRUG VERSUS ITS CONSTITUENTS

Soon after the federal law was enacted a manufacturer desired to know whether the use of the name "mandragorin" was permissible under the act. He was advised that if the preparation was mandragorin, in fact, prepared from mandragora root, such name would be considered proper; otherwise, its use would be misleading and therefore forbidden. He then informed us that the product to which he was applying the name "mandragorin" was a mixture, containing, among other ingredients, the alkaloids present in mandragora root, but that the preparation was not made directly from this root; and he was advised that the use of the name "mandragorin" for such a mixture was improper. The question raised in connection with this product was the authoritative nature of the National Formulary and whether the principles embodied in its nomenclature would be restricted to N. F. preparations, or if they would be applicable to other products. Attention was called to the fact that "elixir of cinchona," synonym "elixir calisaya" was prepared by dissolving salts of the three principal alkaloids of cinchona bark in aromatic elixir and coloring the mixture to imitate an elixir prepared from cinchona bark proper. Without continuing the subject further, suffice it to say that the name "mandragorin" is no longer applied to the mixture in question: but there is no gainsaying the fact, that the manufacturer here has a good basis for an argument.

A moment's reflection will convince even the skeptic that the principle in question would open the field for innumerable improper, if not absolutely deceptive and misleading practices. For example, according to this principle it would be perfectly proper to prepare "tincture of nux vomica" by dissolving a suitable quantity of strychnin sulphate in an alcoholic solution of proper strength and coloring the same with burnt sugar. Again, it would be just as logical to dissolve a certain amount of vanillin in a suitable menstruum, to color the mixture with caramel and call the product "vanilla extract." Again, a tablet containing any salt of the alkaloid berberin could justly be named hydrastis tablet." From this, it is only a step to the "formerly" so-called "bitterless quinin" preparations which did not contain any quinin at all, but cinchonin or possibly some other cinchona bark alkaloid. The above products are plain imitations, the sale of which, in the case of drugs, is declared illegal by the federal and many state laws. No hesitation would be entertained in bringing a prosecution against a dealer in such improperly named commodities. In fact, so-called vanilla extracts, consisting of vanillin, with or without coumarin, dissolved in a suitable menstruum and colored in imitation of genuine products, have been adjudged adulterated and misbranded by the courts in that such articles were not real vanilla extracts, but imitations designed to deceive the public. A case of this character is reported in "Notice of Judgment No. 14" of the United States Department of Agriculture.

Elixir of cinchona is, however, only one of a number of preparations of this class found in the National Formulary. This same principle underlies eight other elixirs of which the name "cinchona" constitutes a part of the title. Other examples are: 1. "Wine of beef, iron and cinchona," synonym "beef, wine, iron and cinchona." There is no cinchona whatever in this product, but it is represented by the sulphates of quinin and cinchonidin. 2. "Tartro-citric lemonade." This preparation is a sweetened, aqueous mixture of tartaric acid, citric acid and sodium bicarbonate. I see no good reason whatever for appending to this product the name "lemonade," either qualified or otherwise. 3. "Emulsion of petroleum." This product does not contain any petroleum whatever, but "petrolatum album." The chief active agent of this preparation appears to be the expressed oil of almond. Petroleum proper and kerosene are believed by some to be of service as remedial agents, but I myself question very much whether any medicinal value that may be ascribed to this emulsion is due to the petrolatum it contains. The name certainly is not in harmony with its composition, and is therefore misleading.

USE OF THE WORD "COMPOUND"

It has long been the practice to name medicinal preparations after a valuable constituent, even though such constituent is only one of a number, and is frequently present in small quantities and in some cases not at all. In view of recent legislation, it soon began to be realized that such names were improper and information was sought relative to the proper use of the word "compound" in connection with certain mixtures. It is clearly evident that the naming of a preparation after a constituent which is either not present, or is virtually inactive or is present in such a small quantity as to impart little if any activity to the product, a practice formerly not uncommon, with or without the use of the word "compound," is improper and misleading. This subject calls to mind many improper and deceptive names; for example, "castor oil pills" and "castor oil tablets," with little if any castor oil, except such as may have been used in lubricating the machinery; "copaiba pearls" with only a nominal amount of copaiba; quinin products in which other cinchona alkaloids have been largely substituted for the quinin, etc. I desire also to direct attention to a protracted correspondence in connection with a so-called "rattlesnake oil liniment," the object of which was to justify the use of the term "rattlesnake oil" as a part of the name of the preparation. The reason why the dealer was so anxious to use the term "rattlesnake oil" was the belief entertained by many that this oil is of great efficacy in the treatment of rheumatism. It finally developed that the preparation contained 1/3 of 1 per cent. or one ounce of the oil to three hundred ounces of the finished product. This amount of rattlesnake oil in the liniment appears certainly to be small justification to name the preparation "rattlesnake oil liniment," either with or without the word "compound," and its use has been discontinued.

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* Read before the March meeting of the Washington branch of the American Pharmaceutical Association.

On referring to the National Formulary we find that in the manufacture of "compound syrup of Irish moss," only 0.1 per cent., or one part in one thousand, of Irish moss, which at most possesses only demulcent properties, is used. If the name "compound syrup of Irish moss," which represents such a trival amount of Irish moss, is correct, why is not "rattlesnake oil liniment compound"? As can readily be seen, the above involves a very important principle. The Irish moss preparation may be a comparatively innocent and, as some one says "an isolated case," but it should be remembered that it is practically impossible to draw a line of demarcation when a precedent is established. This is exceedingly difficult, even with the National Formulary preparations, to say nothing of the host of proprietary remedies involving this principle. It is not the ninety and nine that give the trouble but the one black sheep. Compound syrup of Irish moss is, however, not the only offending "compounded" name in the National Formulary, as will shortly be seen.

Attention is now called to a personal interview which recently took place in connection with a headache remedy containing the word "celery" in its title. The manufacturer recognized the shortcomings of the original name and believed that the addition of the word "compound" would rectify the difficulty. He well realized that the celery present in the product did not constitute any material portion of the activity of the drug but that its potent agents at different times were acetanilid or acetphenetidin and caffein and other ingredients. When the question was raised as to the propriety of using the term "celery" in the name of this mixture, the manufacturer stated that a large proportion of the commercial value of the preparation resided in this word, in that the consumer had been taught from youth up that celery was a valuable remedial agent and the elimination of this word from the name of the product, long in use, would mean a serious loss. Reference was then made to the National Formulary "compound elixir of celery," which might more properly be called "elixir of coca and kola compound." The headache remedy represented a substantial amount of celery and the manufacturer was willing to increase it if necessary. The principle involved in the two cases is apparently the same, and if it is proper in one it is difficult to see why it is not in the other. Another National Formulary preparation referred to at times in similar cases is "compound pills of colocynth." It can readily be imagined that parallelisms of the above character may at times become embarrassing.

After considering various schemes and numerous arguments presented by dealers relative to the origin and existence of deceptive and misleading names and the justifications offered for using the word "compound" to cover up the defects, it was decided on January 3, 1907, to address a letter to the chairman of the National Formulary committee, calling attention to the abuses which took shelter behind the nomenclature of the National Formulary, particularly in connection with the use of the word "compound" and asking that the committee take the subject under advisement and define its attitude on the question. In reply on February 21, 1907, I received a letter from the chairman containing among others the following paragraphs:

> While the committee deprecates and would discountenance the use of any misleading titles whatsoever, it does not concede that such exists in the National Formulary, and particularly not such in which the term "compound" is used.
>
> Although the pharmaceutical practice is not strongly defined and while manufacturers do not always adhere to the generally accepted limitations of the word "compound," yet it is understood that the dominant medicinal agent, irrespective of its mere quantitative relation, gives title to the preparation, and that the other ingredients—the synergic, corrective or adjuvant—in a compound preparation, are the ones that come under the generic title "compound."
>
> As regards the innovations of manufacturers, the committee can not see how the text of the National Formulary can be held as being conducive to the innovation of fraudulent titles, simply because, in connection with the titles of preparations there may appear some well-known and long-used synonyms that are slightly inconsistent. It is respectively submitted that manufacturers who can give as good reasons for the use of the term "compound" as has been herein offered, may be allowed its use without jeopardy to the public.

From the above it was quite apparent that the committee did not intend to give much relief to the embarrassment. It is not clear what is meant by the phrase "slightly inconsistent," but the committee can be assured that manufacturers with the aid of their attorneys give just as plausible reasons for the names they are using as any that have yet come to my attention justifying the use of certain National Formulary names. In order to relieve the situation it was necessary to issue a decision limiting the use of the word "compound" in connection with mixtures, and the following principles were set forth in Food Inspection Decision No. 63:

> In no case can a preparation be named after an ingredient or drug which is not present. The word "compound" should not be used in connection with a name, which in itself, or together with representations and designs accompanying same, would be construed as a form of misbranding under the act.
>
> It is held that if a mixture of drugs is named after one or more but not all of the active medicinal constituents (not vehicle) present in a preparation, the word "compound" can be used in connection with the name, (a) provided the active constituent after which the product is named is present in an amount at least equal to that of any other active medicinal agent present. Example: If it is desired to make a mixture consisting of oil of sandalwood, balsam copaiba, and castor oil, and call this product "oil of sandalwood compound," the oil of sandalwood should constitute at least 33⅓ per cent. of the entire mixture. Or (b) provided the potent active constituent after which the product is named is present in sufficient amount to impart the preponderating medicinal effect. Example: If a product is named after the active constituent,

strychnin, the strychnin or one of its salts should be present in sufficient amount to produce the preponderating medicinal effect of the preparation.

If the above principles were adhered to there would be little improper use of this word. In order to provide for contingencies that were constantly arising in connection with the National Formulary nomenclature, it was necessary to include in this decision the following paragraph:

> Or (c) provided the complete quantitative formula as outlined in the United States Pharmacopeia and National Formulary, be given on the principal label.

The latter requirement eliminated controversies relative to the improper use of the word "compound" in connection with trade-names bearing the name or names of one or more drugs. The manufacturer of proprietary remedies seldom voluntarily discloses such information and usually resorts to some other expedient. This proviso in Food Inspection Decision No. 63 can not, however, be construed to mean that when the quantitative working formula is given, any form of compounded deceptive and misleading name may be used.

At this juncture it is desirable to note the attitude of the highest court towards deceptive and misleading names, by quoting extracts from the opinion of the United States Supreme Court:[1]

> On this point the contention of the plaintiff is that its (the company's) preparation is not a syrup of figs, since it contains only a very small precentage of the juice of the fig; that the laxative ingredient in it is senna. The evidence shows that the compound is not a syrup of figs. It might more properly be termed a "syrup of senna," if the words were intended to be descriptive of the article. But, assuming this not a syrup of figs, we are met with the inquiry whether these words, as applied to this preparation are not deceptive.
>
> The popularity of this medicine arises from the belief in the mind of the ordinary purchaser that he is buying a laxative compound, the essential ingredient of which is the California fig, whereas, in fact, he is buying a medicine the active property of which is senna.
>
> It has intended the public to understand that the preparation which it sells has, as an important medicinal agent in its composition, the juice of California figs. This has undoubtedly led the public into the purchase of the preparation. The statement is wholly untrue. Just a suspicion of fig juice has been put into the preparation, not for the purpose of changing its medicinal character, or even its flavor, but merely to give a weak support to the statement that the article sold is syrup of figs. This is a fraud on the public. It is true, it may be a harmless humbug to palm off on the public as syrup of figs what is syrup of senna, but it is nevertheless of such a character that a court of equity will not encourage it by extending any relief to the person who seeks to protect a business which has grown out of and is dependent on such deceit.
>
> We are not much impressed with the force of this attempted distinction. Even if it were true that, at the time the medicine in question was first made and put on the market, the juice of figs was so largely used as one of the ingredients, as to have warranted the adoption of the name "Syrup of Figs" as descriptive of the nature of the medicine, that would be no justification for continuing the use of the term after the manufacturers and vendors of the medicine ceased to use fig juice as a material ingredient. Even if the term was honestly applied in the first instance, as descriptive, it would none the less be deceptive and misleading when, as is shown in the present case, it ceased to be a truthful statement of the nature of the compound. Nor are we disposed to concede that, under the evidence in the present case, the term "syrup of figs" or "fig syrup" was properly used as descriptive of the nature of the medicine when it was first made. Then, as now, the operative laxative element was senna, and the addition of fig juice was, at the best, experimental, and apparently was intended to attract the patronage of the public by holding out the name of the medicine as "syrup of figs."
>
> On such allegations and the admissions of the complainant's principal witness, some of which are hereinbefore quoted, and on the entire evidence in the case, and in the light of the authorities cited by the counsel of the respective parties, our conclusions are that the name "syrup of figs" does not, in fact, properly designate or describe the preparation made and sold by the California Fig Syrup Company, so as to be susceptible of appropriation as a trade-mark, and that the marks and names, used on the bottles containing complainant's preparation, and on the cartons and wrappers containing the bottles, are so plainly descriptive as to deprive the complainant company of a right to a remedy by way of an injunction by a court of equity.

PRIORITY IN NAME

The federal and a number of state laws specify that if an article is sold under a name recognized by the National Formulary, such article is adulterated if it differs from the standard of strength of this authority, excepting in those cases in which its own standard of strength, quality or purity is plainly stated on the box, bottle or other container. From this it follows that a preparation bearing a National Formulary name must be prepared either in accordance with the formula recognized by this authority, or give its own standard of strength, quality, etc., on the label. If, for example, "essence of pepsin" (or "pepsine") should be prepared by any other method than that prescribed by the National Formulary there appears to be only one course left, and that is to state plainly its own standard of strength, quality or purity on the label. Soon after the enactment of the law several manufacturers who had marketed preparations under certain trade names many years before the third edition of the National Formulary was published raised the question as to the status of such names. There appears to be no difficulty whatever in supplying authentic information to the effect that certain trade names had long been in use by certain manufacturers at the time the titles were incorporated in the National Formulary. For example, "phenol sodique," according to United States trademark No. 45,704, has been in use since 1863; certainly sufficiently long to acquire a property right that a court of equity would protect. It is well established that a proper trade-mark, whether registered or not, is protected by common law and it is highly questionable whether any court in equity would entertain a case in criminal prosecution in which such a trade-mark had been appropriated for use by the National Formulary, and subsequent legislation required either that the manufacturer disclose the nature of his manufacturing process or employ the National Formulary formula. It should be noted that in "errata" issued by the committee in 1907 it is directed to strike out "phenol sodique," but whether this will relieve the difficulty is not clear. In a number of instances the state courts have held that in case the United States Pharmacopeia is specified an authority by law the edition in force at the time the law was passed is legal, and no other.

Another trade name similar to the one above found its way into the National Formulary, namely, "essence of pepsin." This name can not be trade-marked in the United States because of its descriptive or generic character. The name, however, has been long in use by at least two manufacturers for distinctive products, in one case for about thirty years. An article made according to the National Formulary formula is, furthermore, not an "essence of pepsin," but a solution of pepsin and rennin. Many labor under the impression that owners of proprietary remedies deserve little consideration, but I submit that they have rights which should be respected and which are deserving of at least a square deal. The federal as well as a number of state laws are mandatory relative to the proper use of National Formulary names, and those directed to enforce them have no option. It is the plain duty of the committee to apply a proper remedy.

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[1] Worden versus California Fig Syrup Company, 1902, found in United States Reports, clxxxvii, 516, et seq.

GEOGRAPHIC NAMES

It has been a common practice to use a geographic name as part of a trade name, even though the preparation to which such name is applied has no connection whatever with the geographic locality indicated by the name; for example, "German diphtheria remedy," "Swedish asthma cure," "Japanese oil," etc. The use of such names is misleading and a number of regulations were promulgated forbidding their use. One regulation permits the use of any name recognized in the United States Pharmacopeia or National Formulary, while another forbids the use of a geographic name in connection with a drug product which is not manufactured or produced. On referring to the National Formulary we find two geographic names, viz., "Canada liniment" and "French mixture," which complicate the regulations referred to above. There appears to be little justification for retaining these names.

In order to indicate the attitude of the courts relative to the improper use of geographic names, many years before the Food and Drug Act became effective, extracts from several court decisions will be cited.

In Connell vs. Read, 1880, 128 Mass., p. 477, an effort was made to establish an exclusive right to the words "East Indian." The opinion of the court in disposing of this case contains the following statement:

> The conclusive answer to this suit is that the plaintiffs have adopted and used these words to denote, and to indicate to the public, that the medicines were used in the East Indies, and that the formula for them was obtained there, neither of which is the fact. Under these circumstances, to maintain this bill would be to lend the aid of the court to a scheme to defraud the public.

In a Supreme Court decision[2] the above case with others is cited with approval in the following language:

> The doctrine enunciated in all these cases is founded in honesty and good sense; it rebukes fraud and encourages fair dealing with the public. In conformity with it, this case has no standing before a court of equity.

The United States Supreme Court (1883), in its opinion relative to granting the exclusive right to a certain trade-mark,[3] says:

> A court of equity will extend no aid to sustain a claim to a trade-mark of an article which is put forth with a misrepresentation to the public as to the manufacturers of the article, and as to the place where it is manufactured, both of which particulars were originally circumstances to guide the purchaser of the medicine.
>
> It is admitted that whatever value the medicine possesses was given to it by its original manufacturer, Moses Atwood. He lived in Georgetown, Mass. He manufactured the medicine there. He sold it with the designation that it was his preparation, "Atwood's Vegetable Physicial Jaundice Bitters," and was manufactured there by him. As the medicine was tried and proved to be useful, it was sought for under that designation, and that purchasers might not be misled, it was always accompanied with a label, showing by whom and at what place it was prepared. These statements were deemed important in promoting the use of the article and its sale, or they would not have been continued by the assignees of the original inventor. And yet they could not be used with any honest purpose when both statements had ceased to be true. It is not honest to state that a medicine is manufactured by Moses Atwood of Georgetown, Mass., when it is manufactured by the Manhattan Medicine Company, in the City of New York.

The extracts contained in this communication, taken from the court decisions, are clear, succinct, to the point and do not need any comment.

SUGGESTIVE THERAPEUTIC NAMES AND HABIT-FORMING DRUGS

A number of preparations are named either after some anatomical portion of the body or suggest some diseased condition; for example, "pectoral tincture," "mistura pectoralis," "anti-neuralgic pill," "catarrh powder," etc. Are these suggestive names intended for the benefit of the physician or the druggist? In either case they are uncalled-for, particularly in view of the fact that most of the preparations contain habit-forming agents. The practice of concealing the presence of these insidious drugs by various innocent names should be looked on with disfavor. In my opinion preparations of this class are responsible for many cases of drug addiction.

MEDICINE VERSUS BRACERS

There is a host of commodities on the market which owe their virtue chiefly to the alcohol contained therein. They are usually sold under generic names, such as medicinal wines, bitters, tonics, vermouths, etc., many of which contain only traces of certain medicinal agents, such as extract of cinchona, gentian, beef, calumba, various combinations of iron, etc., or very small amounts of one or more of the cinchona alkaloids. One of the products recently examined was found to contain not more than one-fortieth of a grain of total alkaloidal matter to the fluid ounce. Another preparation contained very small amounts of cinchona extracts and iron salts. The dealer was requested to show cause why the name of his preparation should not be adjudged a misnomer. One of the arguments presented to justify the use of his name was the National Formulary "beef, wine and iron" product. A careful comparison showed that the amount of actual iron compound present in the product under consideration was less than the amount represented by the National Formulary product but not sufficient to warrant holding one misbranded if the other was not. The former was intended largely for beverage purposes and it is well known that the Commissioner of Internal Revenue seriously considered classing "beef, wine and iron" as a beverage also. The point raised in connection with these two products is an exceedingly important one and requires adjustment. If it is permissible to add simply enough of an agent to merely suggest a certain physiologic action, be it ever so remote, primarily for the purpose of using the name of a substance possessing recognized medicinal properties, in conjunction with the trade name of a commodity, one helpful feature of the law would be largely negatived and an ever-increasing number of so-called medicinal products of the most absurd character could be placed on the market. When it is remembered that the best element of the pharmaceutical profession is making strenuous efforts to remove the odious name "liquor dealers" from the members of their profession it is difficult to comprehend why products of the type referred to above should be retained in an authorized publication of any pharmaceutical organization. The above should not be construed in any manner as referring to liquor proper when sold and used as such for medicinal purposes.

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[2] Manhattan Medicine Co. vs. Wood, local citation.

[3] Manhattan Medicine Co. vs. Wood, U. S. Reports, cviii, 218.

In conclusion, I desire to state that the National Formulary nomenclature contains many excellent features which are not referred to in this communication, because its chief purpose is to call attention to the shortcomings of the nomenclature, leaving mention of the good features to others. I fully realize that the criticisms are largely of a general character, but if carefully applied they will rectify many undesirable features existing at present.

THE PHILOSOPHIC ANATOMY OF THE TONGUE

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The aim of philosophic anatomy is the study of the reason of things, of the principles, of the general laws of anatomy, of the relation of cause and effect. It includes also, last but not least, the singling out of the peculiarities, i. e., the special features presented by organs, and it endeavors to explain their reason, their why, their wherefore. The task is not an easy one in the present condition of our knowledge. Studied from this point of view, the dryness of anatomy vanishes and it becomes a revelation to the student. In this study, it is assumed that the reader is familiar with the peculiarities and no description of them shall be repeated.

The philosophic anatomy of the tongue, given below, is an attempt to illustrate this idea. It will be followed later by other similar descriptions of a subject which has never been touched before by any one, as far as I am informed.

Esop, the great fabulist, being one day ordered by his master to serve on his table the best thing he knew, served him a tongue. Then the master ordered him to serve the next day the worst thing he knew, and Esop served a tongue again. He meant thereby that the tongue was the best and worst thing he knew. We can not recall any other organ of which we could say as much, except, perhaps, the brain. But Esop was speaking figuratively.

The tongue, the nose and the skin are the only organs of special sense which perform also other functions. The eye and ear do nothing else but see and hear. The tongue acts also in prehension, mastication, deglutition and speech. The skin acts also in perspiration and elimination.

The tongue is one of the organs which present a base, a body and an apex, the other organ presenting such divisions being the heart. It is a single or whole organ in the human species, but in some of the lower animals its point is bifid. The point of the heart, however, is often slightly grooved. The tongue is sometimes too large for the cavity of the mouth, and that causes a peculiar kind of articulation. We say of some people, who talk too much, that they have too much tongue; also that they have sharp tongues.

In the condition of rest the tongue is in the mouth proper, but it is readily and rapidly protruded out of it. It is the only organ that can be made to protrude out of the cavity that contains it.

No other organ can assume more various directions and shapes than the tongue. No other organ has so many of its parts attached to its surroundings, the base being attached to the hyoid bone; most of its under surface to the floor of the mouth. It presents a frenum, or bridle. The other organs that have a frenum are, the glans penis, the clitoris, the lips; but the frenum of the tongue is most marked. This frenum presents the twisted papillæ of Wharton's duct, and no such peculiarity is seen along any other frenum or bridle.

Yet the tongue is the most movable of all organs of the body. No other organ can assume so many different shapes. The hand and fingers come next, but the tongue can assume more various shapes and positions than the hand can. The tongue moves also with the hyoid bone during deglutition. The other organs which possess such extrinsic movements are, the pharynx, larynx, trachea, thyroid body, and the liver.

The shape of the tongue must be specially noted. It is used to describe other organs. We say of some that they are tongue-shaped. The uvula is a miniature tongue.

We must particularly mention the great differences between the posterior third of the organ behind the circumvallate papillæ, which is deprived of papillæ, and the anterior two-thirds which are covered with papillæ; the differences also between the dorsal aspect of the tongue, covered with papillæ, and the under surface, which is smooth. The under surface presents a peculiar blue streak, due to the presence of the superficial submucous ranine vein, which is not seen anywhere else.

The borders of the tongue, being in contact with the teeth, often retain their im[illegible] h no other organ does with its [illegible] the base of the tongue is fixed in position and shape, the point, on the contrary, is most movable and changeable in size and shape.

The tongue is one of the organs which presents a dual structure, in accordance with its dual functions, the functions of an organ of special sense and those of an organ of motion participating in the acts of prehension, mastication, deglutition and speech.

That the color of the tongue varies more than that of any other organ, is worthy of note. Its different shades are familiar to the clinician. Some people have a remarkably bluish tongue. I will only mention here the would-be beauties that dye their tongue to give it a bright hue, as they paint their faces and their eyes.

The tongue has a firmer consistency than any other viscus, being a solid organ and a muscle. The other muscular viscus is the heart, but it is a hollow organ.

The tongue has only one envelop, the mucous membrane, and it is to be remarked that it is very adherent on the dorsal surface, more so than anywhere else, except the gums and the hard palate; on its under surface its looseness is greater than in any other situation.

The characteristic elements in the structure of the tongue are the papillæ. It is to be noted that they are situated only in the anterior two-thirds of the back of the tongue; that there are three varieties of them; that the larger they are, the less numerous they are, and the further back they are situated; that the most numerous, the filiform or conical, exist everywhere.

Their names are truly well chosen; the circumvallate represent a circumvallation, but it is to be noted that the real papilla, which occupies the circumvallation, is a truncated cone which stands on, i. e., is implanted by its apex and not by its base.

We must bear in mind that taste goblets exist only in the hemispheric and the circumvallate papillæ, and not in the conical; that these are provided with long epithelial processes, the object of which seems to be to retard the course of the fluids on the surface of the tongue, thereby giving the taste goblets time to be thoroughly impressed by the special taste of the fluids. These long epithelial processes are characteristic and unique. No other organ presents them.

The papillæ of the tongue are the same as the small microscopic papillæ seen on the surface of almost all mucous membranes, being projections of all the elements of the mucous membrane, only on the tongue they are much larger. The villi of the intestines are similar to the papillæ of the tongue and have the same fundamental structure, but they are characterized by a cecal lacteal in their center, instead of presenting taste goblets or epithelial processes.

The appearance of the capillaries of the tongue is notable and characteristic, resembling a large oak-tree in the circumvallate, a smaller oak in the hemispheric, and a poplar tree in the conical.

That the whole tongue is formed of a solid mass of muscles is noteworthy, being covered only by a mucous membrane. We must also take notice that the tongue has intrinsic fibers. The stomach and the heart also present intrinsic fibers.

We must recall here the importance of that portion of the lingual artery which runs above the great horn of the hyoid bone and below the hypoglossal nerve, because that is where the artery is ligated whenever any operation on the tongue extends beyond the anterior half. It is also to be noted that when the two linguals are ligated simultaneously, as must be done when the operation extends beyond its posterior half on both sides, the organ does not slough although there is no anastomosis of any consequence with any other large artery, owing to the isolated condition of the tongue in the mouth. We can not here consider the anastomosis of the dorsal of the tongue with its fellow of the opposite side, because those arteries usually originate beyond the hyoid portion of the lingual. It is because the lingual arteries in their posterior half are large and, being deeply seated, are not easily secured in all operations of the posterior half, that the linguals must be ligated in their hyoid portions previous to operating on the posterior half of the tongue. We must notice also the rather serpentine course of the artery in the tongue, which enables it to accommodate itself to the numerous and various changes in the length of the organ. The cavernous arteries of the penis are also serpentine for the same reasons.

The superficial ranine vein is the only submucous vein visible to the naked eye and giving the membrane a bluish tinge. The lingual veins are interesting because they cross over the external carotid artery to reach the jugular, sometimes necessitating their section between two ligatures to make it possible to reach the artery underneath conveniently.

The tongue is the only organ presenting the three kinds of nerves, i. e., nerve of special sense, the gustatory, or lingual; nerve of ordinary sensation, the glossopharyngeal; and nerve of motion, the hypoglossal. We here recall that the gustatory is the only nerve of special sense originating in common with other nerves from the inferior maxillary, a compound nerve; also that it receives the peculiar cord of the tympanum from the facial, the only instance of a motor nerve anastomosing with a nerve of special sense. The termination of the filaments of the gustatory by hair cells into the taste goblets is seen only in the olfactory and the cochlear branch of the auditory. Finally, we must reremark that the gustatory is the only nerve of special sense that is a hard nerve, the others, the olfactory, the optic and the auditory, being remarkably soft nerves.

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SOME OF THE POSSIBILITIES AND LIMITATIONS OF THE X-RAYS AS A THERAPEUTIC AGENT *

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I wish to state, first of all, two self-evident propositions:

First: The administration of a therapeutic agent in a disease, the pathology of which is known, is attended with a greater or less degree of success, depending on the potency of this agent to remedy the pathological condition present.

Second: However potent an agent we may possess, for its use to be attended with the desired result, it must be applied in such dosage, with such frequency, and for so long a period as the pathology of the condition and the ends in view seem to require.

Mercury and iodin are the two remedies that are productive of more good in syphilis than all the other drugs of the Pharmacopeia. They were found to cause a disappearance of the manifestations of this disease long before its pathology or etiology was ascertained. Few patients, however, were permanently cured by these potent agents before there was some knowledge of the pathology of the disease and at least an idea of the causative factor in its production. With how much greater confidence do we administer these remedies now than formerly!

Having agents whose potency is established, we have but to apply them in proper dosage, with proper frequency, and for a sufficient period, and the cure is effected.

When the *x*-rays began to be experimented with in the treatment of disease, about 10 years ago, it was found out empirically that certain pathologic conditions were relieved by the application to the area involved, of this agent, for a greater or less length of time. Following this discovery, tissues were examined and the changes in them, produced by exposure to the light, were carefully studied. Gradually, from these investigations, the general principle was evolved, that in this new light, we had an agent that could be made to produce a variety of effects, depending on the method of application. Briefly, these effects on living matter may be said to be anesthetic, alterative, stimulant, and destructive. All the results so far obtained may be accounted for, I think, by one or more of these actions.

It has been ascertained that the radiant energy from the Crooke's tube is not homogeneous, but consists of several kinds of rays, which possess different properties. Just as sunlight is composed of rays possessing different characteristics, *e. g.* red, the greatest heating, and violet, the greatest chemical properties, so in the *x*-rays. there is one ray which produces marked physiologic activity, while another shows greater penetrating qualities. Those which produce the greatest physiologic effect are the most readily absorbed by the skin, and possess the greatest therapeutic properties. The skin seems to filter out the major part of these rays, while the most penetrating, having very slight physiologic activity, are allowed to pass quite readily. This is evidenced by the facts that *x*-ray "burns" are confined to the skin and most superficial structures. By means of certain materials, *e. g.* aluminum and wet leather, interposed in the path of the rays, those which produce the so-called burn may be filtered out, with very slight obstruction to the penetrating rays; other substances, such as silver, are said to absorb the penetrating rays, while those affecting the skin are largely transmitted.

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* *Read at the Tri-State Medical Association of Virginia and the Carolinas, Charleston, S. C., February, 1909.*

It is easy, therefore, to see the cause of failure in the treatment of deep-seated disease. whereas the same pathologic condition readily responds, if the lesion be superficial.

The time has passed when a Roentgenologist was justified in applying the rays to conditions, concerning the pathology of which he knew nothing. He would be equally as culpable as if he were to administer mercury and iodin under the same circumstances.

Considering that the effects produced by the *x*-rays depend in their nature on the quantity applied, the dosage must be suited to the effect that it is desired to produce.

Would anyone expect to cure a case of syphilis with 1/100 grain of bichlorid of mercury, daily for a week, or 5 grains three times a day for a month? Neither is any more absurd than to expect to produce a definite effect with an indefinite dose of the *x*-rays, and yet it is being done daily by many possessors of *x*-ray machines throughout the country. Since mercury and iodin are specifics for syphilis, does it follow that they must also be beneficial in diphtheria when administered in the same way? There are physicians who would resent the insinuation that they would be guilty of such folly as this, who are treating with the *x*-rays, almost any disease that happens to fall into their hands. Is it a wonder that failure is oftener than otherwise the result and a "black eye" given to *x*-rays and *x*-ray operators everywhere?

While there is yet no satisfactory unit of quantity by which the *x*-rays may be accurately measured, the time is not far distant when one will be established so that the dosage may be applied as so many *x*-ray units. There are certain factors that by proper regulation enable us to vary with a fair degree of accuracy, the output of a certain equipment, but there is no fixed rule that applies to all. Each set of apparatus is a law unto itself and its characteristics must be ascertained before this outfit can be intelligently employed. A little care in the use of a new equipment will enable the operator to determine the reaction point with that equipment working under the same circumstances, within the limits of a few minutes. From this he can easily compile a table for that apparatus that will guide him in the application of the rays to pathologic conditions.

To determine whether or not a condition will probably be benefited by *x*-ray treatment, it is only necessary to make mental application of the known effect of the *x*-rays to the pathologic condition present.

The rays manifest their effects on cells to an extent proportional to the resistance of the cells; different kinds possess this resistance in a widely different degree. It is on this fact that we rely to destroy malignant cells without causing a similar destruction of the normal. Epithelial cells are much more readily affected by the rays than those of connective tissue or muscle; glandular epithelium is especially susceptible, while fibrous tissue is very resistant.

From the foregoing we may conclude that: Those pathologic conditions which involve the epithelial structures may be influenced by the *x*-rays when sufficiently superficial to be reached by those which are active. Fibrous growths and lesions in which fibrous tissue involvement is largely present, are very slightly affected except by pushing the treatment to the point of "burning" when the effect is very similar to other cauterizing agents.

In accordance with the facts and theories, as given, it may be deduced:

First: Malignant disease, while yet local, may be treated with the assurance of good results, provided the lesion is in the skin or very near the surface, and the age of the patient or condition of the general health is not such as to render the reparative powers too low. The treatment of deep-seated primary cancers should never be undertaken except in inoperable cases, or when the patient will not consent to surgical procedure. In these cases it is best to remove the diseased parts as radically as possible, and if practicable, leave the wound open to be treated by the Roentgen method, and if necessary, resort to a second plastic operation to close it.

Second: Such skin diseases as involve the epithelial and glandular structures are more or less amenable to treatment. Those involving the fibrous tissue of the corium respond with great difficulty, or not at all.

Third: Glandular enlargements, so long as they are due to gland-cell hyperplasia, will be greatly benefited by *x*-ray treatment; when the hyperplasia involves the connective tissue element, very little result will ensue.

I trust the principles that I have attempted to bring out may serve to lessen the tendency to approach fakery that is sometimes too evident in *x*-ray operators, and especially to establish the fact that definite *x*-ray effects are due to definite *x*-ray causes, and that in the Roentgen rays, we have an agent, limited in its usefulness, but of maximum efficiency when confined within its proper scope.

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The Cranial and Facial Characteristics of the Neanderthal Race.—W. J. Sollas (Phil. Tr. Roy. Soc. Lond., 1908; Series B, cxcix, 281), has made further study on the Neanderthal race and its probable significance in the evolutionary history of man. The skull of the Neanderthal race possesses many features in common with certain flattened skulls met with in certain Southern Australian tribes; it differs in breadth, in the glabellar region, and in thickness. But the Neanderthal large orbits, projecting broad nose, retreating cheek bones, absence of depression beneath orbits, long face and low degree of prognathism are peculiar. The Neanderthal race and the Australian probably represent diverging branches of the same original stock. In regard to cranial capacity the two races are almost indentical—"the Neanderthal and the Pithecanthopus skulls stand like the piers of a ruined bridge which once continuously connected the kingdom of man with the rest of the animal world."

Special Article

TRAVEL NOTES

A PHYSICIAN'S HOLIDAY IN THE ENGADINE

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The words, St. Moritz in the Engadine, had been ringing in my ears ever since, as a young physician, I first read them in the *Medical Times and Gazette*, that excellent journal then published by the Churchills, but long since discontinued, while Ragatz and the equally cacophonious Pfäffers have been staring at me from the pages of text-books for so many years that I determined my next holiday should make me more familiar with this district. Landing at Antwerp, I could not resist the temptation to spend a day in beautiful Brussels, to peep again into Cologne Cathedral and repeat the Rhine trip, but by August 5 I was in Ragatz, whose waters have long had a reputation for the cure of a long list of maladies, including chronic rheumatism and gout, joint affections of traumatic origin, nervous diseases, including neurasthenia and neuritis, especially sciatic neuritis, diseases of the brain and spinal cord, gastric intestinal and bronchial catarrh, renal and bladder affections and diseases of women. The number is too many and varied to inspire confidence, although it is not unlikely that any one or all of these ills may be favorably influenced by the hydrotherapy here practiced, associated as it is with mechanotherapeutics by the Zanders' apparatus, scientific massage, electricity and various dietetic cures. Nor does the chemical composition of the thermal waters of Ragatz inspire more confidence, for although the ingredients are many they are not present in quantity sufficient to justify the term "mineral," since the water has a total of only three parts of solid matter in 10.000. The solids include iron, aluminium, calcium, strontium, barium, magnesium, potassium, sodium, lithium, ammonium, and numerous others, all in very minute proportions, not omitting radium, as attested by the attendant who showed me the baths. The most abundant constituent is carbonic acid, which is represented by one of the three parts. To this and to the temperature of the water may be due its efficiency. Its source is Pfäffers a couple of miles distant, where the water gushes out of the earth with a temperature of 98.6° F., whence it is piped down to Ragatz. A cure house was built at Pfäffers in 1242 by the abbots of Pfäffers, and remnants of it still remain. The present house was built in 1714, and is still a popular resort, although much shut in and therefore gloomy on other than bright days. The valley of the Tamina which connects the two health resorts of Ragatz and Pfäffers, widens out from the famous Tamina gorge into a broad valley, in which lies the pretty town of Ragatz, with its two large hotels, the Quellen hof and Hof Ragatz, with their extensive grounds, Cursalle, Casino, and baths, into which is poured an abundant supply of hot water from Pfäffers by the method above described.

There is nothing peculiar in the baths themselves. They are taken in porcelain lined tubs sunken below the floor, and are available not only on the grounds of the two great hotels, but as well at the cure house in the center of the town, where, too, the fine orchestra gives its concerts, alternating with those at the Casino on the hotel grounds. In the latter there is a large swimming pool. The popularity of the baths is attested by the annual visitation of 30,000 visitors, of whom presumably a number are tourists and observers. The season of Pfäffers is from June 1 to September 1; at Ragatz from May 1 to October 1. English visitors are more numerous early in the season. When I was there in early August there were a few of the latter, German and French being almost the only languages spoken. Numerous walks and drives, the ravishing music, and the grand mountain scenery made easily accessible by a funicular railroad make the two places most attractive residences for a time.

From Ragatz to St. Moritz, in the heart of the Engadine, is a four hours' journey over the Albula pass by the Rhaetian railroad in which scenery and marvelous construction vie with each other in absorbing the attention of the traveller. The railway climbs by many windings upward, until one is dizzy with the height, and a curious sensation in the ears when talking, and a feeling of nervousness indicate that the circulation is being influenced. It is, however, a matter of a few minutes only, for soon the descent is commenced, and as it is made more rapidly than the ascent, the equilibrium is soon re-established.

Almost every one forms a conception of a place of which he has heard much and looked forward to visiting, a picture generally quite erroneous. Such was my conception of St. Moritz. I had supposed that by stage one would travel slowly upward from the railroad station to an expanded plateau in the center of which would be a single or perhaps two hotels and a *Kursaal* where there were many invalids including consumptives, and that in winter this plateau was covered with snow. Instead I found many omnibuses at the station representing as many hotels. It is true we wound our way upward, passing several huge and luxuriously appointed hotels to our own, which was the highest in the *Dorf*, or village, not on a plateau, but on the mountain side. There are others equally large and sumptuous as well as many smaller hotels collected about the site of the springs or St. Moritz-Bad. This, at one time isolated from the *Dorf*, has become continuous by the hotels and shops lining the road down from the latter, the whole forming a handsome village of white houses over 6,000 feet above the sea—a village scattered over the hillside and around the lake, with a permanent population of several hundred and a summer population of as many thousands—but nowhere any evidence of patients or sick people. Instead are seen gaily dressed women and natty men, with here and there a man or woman more appropriately dressed for mountain climbing, armed with the familiar Alpine stock.

Not that there are no sick to be found here. They may be seen at the baths, none looking very ill, and apparently no consumptives at all. For what then do persons go to St. Moritz? The largest number doubtless for the bracing air and the delightful pastimes of golf, tennis, mountain climbing and walking. Moreover, the sick are not very sick. This was not only my conclusion in my daily visits to the baths, for I took them myself, but it was the testimony of the old *diener* who prepared the baths in the men's sections. When asked why they did not make use of the Zander and other more complicated apparatus for mechanotherapy and hydrotherapy, he replied that the invalids who came here were more especially those who needed rest and the simpler therapy of tub bathing in carbonated water as a sort of after-cure. Nor was there any specialized bathing as prescribed by physicians, such as douche and needle baths, but the bather himself gave directions as to the temperature and duration, perhaps after consultation with a physician.

The waters have as their distinctive constituents iron and carbonic acid. The former is easily recognized by the taste and constitutes the chief object for the internal use of the water by drinking. For bathing purposes, it is commonly used at a temperature of 28 Reaumer, 35 C. or 95 F. As to actual conditions for which the baths are taken, in addition to simple anemia, asthenia and weariness, chronic rheumatism and cardiac weakness are conspicuous. I can testify in my own case as to the rejuvenation which succeeded a course of ten baths at a temperature of 97 F. each of ten minutes' duration. The bathers rest quietly in the bath in order to permit the attachment to the skin of little bubbles of gas which arise in a shower of millions with the least movement. The skin is rendered visibly red by the attached bubbles which thus act as a gentle but widely diffused counterirritant.

As is usual in Europe, the baths are divided into first, second and third class, the only difference being in the appointments of the bath room. The first-class baths are provided with porcelain-lined tubs, the second class with tin-lined tubs and the third class with wooden tubs, all scrupulously clean and almost equally inviting. The first-class baths are provided, too, with warm towels, which are very agreeable.

Another health resort in the Engadine worthy of mention is Tarasp in the lower Engadine, which has received the appellation of the "Karlsbad of the Engadine," from the fact that the waters are of like composition, though cold instead of hot, and are used internally and externally for like purposes, viz., chronic gastric and intestinal catarrh, enlargement of the liver, gout, rheumatism and diabetes. Tarasp and Schultz-Tarasp in the near vicinity have the advantage of Karlsbad in the more bracing air, while they are at a disadvantage because of more limited choice of pleasurable diversion, exercise and diet. A medical friend who had taken the Karlsbad treatment took this year the Tarasp treatment with like beneficial results.

Where, then are the consumptive patients for whose treatment the Engadine has become so famous, and for whom I looked in vain at St. Moritz, and likewise at Pontresina and the adjacent Samaden? Davos Platz in the Davos valley 20 miles distant, has become the haven of consumptives. It, too, is 5,000 feet above the sea and well sheltered. Here the amusement as well as treatment of consumptives is provided in winter and summer in the well-appointed and sun-exposed sanatorium. Patients with allied and associated conditions, such as bronchial catarrh, pleurisy and its products, scrofuloses, nervous asthma and neurasthenia are received.

A few words in conclusion on the rare beauty of the Engadine The word Engadine means the Valley of the Inn—the river Inn, which arises in the melting ice and snow of the Italian border and gathers strength and volume as it flows northward and eastward to Insbruck, the Tyrol and Danube into which it ultimately flows at Passau. At St. Moritz, 6,000 feet above the sea, it widens out into the beautiful azure Engadiner See, a lake about a mile long and a quarter of a mile wide, in which of a clear day one can see reflected the bordering Alpine peaks; over its surface move numerous and varied crafts, usually manned by Italian boatmen and propelled by sail and oar and freighted with pleasure seekers. From the porticos of the Engadiner Kulm Hotel a beautiful panorama of snow-capped peaks stretches away to the south and beyond. In midsummer the air is cool, sometimes almost too cool for comfort, but clear, invigorating and rejuvenating, and it is not surprising that summer after summer and even winter after winter the same families resort to St. Moritz for the bracing air and summer and winter sports. The valley is about 60 miles in length and includes the adjacent villages of Pontresina, Samaden, Cresta, Silva Plana, Sils and Maloja in the upper Engadine, and in the lower Engadine Tarasp and Schulz-Tarasp.

1506 Spruce Street.

Clinical Notes

RECOVERY FROM RUPTURE OF KIDNEY AND FRACTURE OF PELVIS

G. I. BAUMAN, M.D., and W. E. LOWER, M.D.
CLEVELAND, OHIO

Patient.—A boy, aged 17, was first seen about 3 p m. Nov. 3, 1908. He had been thrown and dragged some distance in a collision between his wagon and a street car.

Examination.—Patient had been given morphin, gr. ¼, and was resting quietly. He had no severe pain, breathing was regular; pulse was 88, regular, rhythmic, and of good volume. There were numerous skin abrasions over the lower back, left thigh and knee; none in left kidney region; some swelling was apparent just below the crest of the left ilium, which latter showed preternatural mobility, with crepitus and considerable pain on manipulation. Apparently there was a transverse fracture just below the crest. The patient was examined for other injuries but none was found. He had not voided urine so that diagnosis of injury in the urinary tract was held in abeyance. The left side of the pelvis was strapped, using gentle pressure, the intention being later to apply a plaster-of-Paris dressing.

Hospital History.—At 7:30 p. m. the patient was found in evident shock from hemorrhage. Pulse ranged from 120 to 140 and over, and was of very low volume and tension. There was anemia and there were also some signs of air hunger. He had voided four ounces of practically pure blood. The swelling over the ilium had increased and there was ecchymosis; there was also dulness in the lower left quadrant extending to the midline and above to the level of the umbilicus, no dulness was apparent in the right flank. Evidently there was a retroperitoneal collection of fluid. The abdomen was not distended. A direct transfusion and exploratory operation was considered but delayed as the pulse was improving slightly.

Treatment.—Infusion, bandaging of legs, elevation, ice-bag over ilium and morphin At 3:30 a. m. the boy was found to be more anemic, pulse was very faint and there was considerable air hunger He passed two ounces of practically pure blood A blood transfusion was then done but very little blood passed We considered the patient to be in too profound shock to warrant any operative interference and he was taken from the operating room in very serious condition. Continuous rectal saline solution apparently did some good as he slowly improved and after 11 a. m. the urine was clear. The area of dulness receded.

Subsequent History.—From this time on there was a steady improvement The urine remained clear until November 8, when blood reappeared and continued almost constant in spite of various internal medication until November 18, when it permanently disappeared. The dulness in left lower quadrant had gradually receded but about November 20 a small tumor appeared in this region just to the left of the rectus and above Poupart's ligament. This was movable, dull, irreducible and rather tender There was no dulness in the right flank. No important rise of temperature occurred, but the patient vomited twice on November 22 and did not seem so well The tumor increased in size and on November 25 operation was decided on.

Operation.—An incision four inches long was made from the left anterior, superior, spinous process upward and outward to the costal margin Incision into the peritoneum revealed a localized collection of clear straw-colored slightly urinous fluid which was drained off and an opening in the posterior parietal peritoneum was found; this was enlarged and in the cavity found there was considerable blood clot, brownish fluid and blood, this was evacuated and a large tear in the inner side of the lower pole of the kidney was found. It appeared to be filled with blood clot and to be in process of healing. The inner edge of the tear in the peritoneum was then stitched to the inner edge of the anterior incision in the peritoneum, thus closing off the peritoneal cavity; the retroperitoneal cavity was packed with iodoform gauze.

Postoperative History.—November 26, condition was good, pulse was 100, temperature 100 There was very free discharge On November 27: Very free drainage. Part of packing was removed. All the gauze was removed November 30 Drainage was very free and assumed a decided urinous odor. Patient continued to improve. Some pus appeared in the discharge about December 2, but it gradually lessened in amount and on December 22 the patient went home with wound practically healed. There was a very slight discharge until about January 14, 1909, when the wound was entirely closed. The fractured pelvis gave no trouble; the scar is solid, the urine normal and the patient apparently well.

Delbet,[1] in a very thorough consideration of this subject, gave a complete résumé of the reported cases up to 1901 These consisted of 320 cases, divided as follows·

Recovery without surgical treatment....	.122 cases
Death without surgical treatment	105 cases
Recovery with operation, but without nephrectomy; incision and drainage	31 cases
Death after nephrotomy..	2 cases
Recovery after nephrectomy.	28 cases
Death after nephrectomy	10 cases

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[1] Delbet Ann des Maladies des Organes Genito-Urinaires, xix, 805 839

There have been eight cases reported since 1901.

Including in the conservative treatment of these cases those in which there was no surgical interference and those in which simple incision and drainage was done, we get apparently the largest number of recoveries. However, the proper treatment in these cases is a disputed point, Keen[3] stating that in the most cases an exploratory operation should be done. In our opinion, death would have followed an immediate operation in our case, and it seems to us that no fixed rule should be laid down; each case should be treated on its own merits.

It should be borne in mind that only cases of subcutaneous rupture of the kidney are considered in these reports and remarks.

AN UNUSUAL RUPTURE OF THE UTERUS

H. P. BARTON, M.D. and C. A. SMALLEY, M.D.
LOS ANGELES, CALIF.

Patient.—A woman, aged 35, was sent into the Clara Barton Hospital, Dec. 4, 1908, with the tentative diagnosis of ruptured ectopic pregnancy.

Condition on Admission.—When seen by us she was in a state of collapse with weak, thready, and intermittent pulse; rapid respiration, and a temperature of 98 F. She was not particularly anemic, however. Her abdomen was very much distended and she complained of pain over the enlarged uterus. No fetal heart could be heard and no movement of the child could be detected.

History.—The patient gave a history of an uneventful pregnancy of seven months duration. At about five months she began to notice fetal motion which continued irregularly up to her present illness. At 3 a. m., Wednesday, Dec. 2, 1908, she was taken with a sudden pain in the lower abdomen and collapsed. Since when she had noticed no fetal motion and her bowels had not acted. Her attending physician had treated her expectantly until a consultation had decided the presence of a surgical phase, and she was sent into the hospital for observation. Ectopic pregnancy was ruled out owing to the patient's history, and the normal, symmetrical enlargement of the uterus. Rupture of the uterus seemed most probable with rupture of some of the other viscera as a possible alternative. However, the fact that the woman was not in labor and had not been; had sustained no accidents, and had been perfectly well throughout her pregnancy made us hesitate in making a positive diagnosis.

Termination of Case.—It was clearly a surgical case, but the woman was practically moribund and operation was out of the question. Four hours later she died.

Autopsy.—The peritoneum showed signs of inflammation. About 500 c.c. of blood and exudate was taken from the pelvic cavity. The tubes were folded behind the uterus, enlarged and adherent and at the fundus the fetal head was protruding.

Careful questioning of the husband elicited the fact that the woman had had an instrumental delivery several years previous, after which she was ill for several weeks.

She probably then had a severe infection which produced the adherent tubes and the fixed uterus which the autopsy disclosed.

The cause of rupture was probably a degeneration of the uterine muscle, together with fixation of the uterus by inflammatory adhesions and a consequent inability of the womb to grow in the same ratio as did the fetus.

Rupture of the uterus under any circumstances is a rare accident of pregnancy. Authorities range in their statistics from 1 in 1,200 to 1 in 4,000 of cases of pregnancy.

Presumably, spontaneous rupture is so unusual that separate statistics of this condition were not given by the authorities consulted. When the site of rupture is considered the fundus is the rarest of all; and the time of rupture is almost invariably during labor. The causes of spontaneous rupture are: a previous endometritis, an atrophy or degeneration of the uterine muscle, a previous myomectomy or a Cesarean section.

447 South Olive Street.

A CASE OF PURPURA

THEODORE C. MERRILL, M.D.
COLORADO, TEXAS

In the following case I have regarded the condition as a distinct malady for descriptive purposes, since hemorrhages were the dominating feature. Symptoms of slight fever and weakness seemed not causative, but natural results respectively of ferment in the ecchymoses and loss of blood.

Family History.—The patient's family consisted of father, mother and four children. The patient was the eldest child. The second child, aged 6½ years, had marked mitral insufficiency. The mother's pulse-rate was 90 and above. Otherwise the family was without abnormality, peculiarity of predisposition, or taint of previous disease.

Patient.—A boy, aged 8, first seen April 27, 1906. At this time the patient had frequent and severe hemorrhage from the nose, gums and palate. Blood exuded from the gums during sleep, soiling the pillow, and leaving small clots distributed generally over the mucous membrane of the mouth and pharynx. There were many ecchymoses in the skin without order as to distribution. The general condition was one of prostration. The temperature varied from subnormal to 100. The parents stated that the condition had been present in the spring, recurring at this period for the previous four years, and that it tended to spontaneous improvement as summer came on. No treatment seemed to have the slightest influence. There was no previous history of rheumatism, no apparent cause for scurvy, and no discoverable toxic influence. There was no pain, swelling, arthritis, diarrhea or constipation. Nervous symptoms and involvement of special senses were absent. The urinary apparatus and excretion were normal. Unfortunately, it was impossible to make blood examination. The coagulation period of the blood was normal. Hemorrhage was the dominating symptom: occurring frequently through the day from nose and mouth, it seemed to defy attempt at treatment. The slightest contusion in the cuticular tissues was followed by a large ecchymosis. Secondary infection and abscess formation, fortunately, did not occur.

Treatment.—This was necessarily directed first of all to control of hemorrhage. Nasal tampons and the use of various styptics gave results only after many trials and with much difficulty. General antiscorbutic diet was arranged. The patient was fed gelatin, but no gelatin injections were used. Various drugs were employed, Blaud's pill for anemia seeming to have a helpful influence in recovery from the hemorrhages. Calcium sulphid and hydrastis after a time seemed gradually to reduce the frequency and amount of the hemorrhages, and the patient was treated by them consistently and persistently. Adrenalin seemed without effect.

Course of Disease.—The patient gradually improved from April to November. In the following spring (1907) a slight

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2. Florchen-Beitr. z klin. Chir., 1907, liv, 308: *One case, incision, suture, drainage, recovery.*
 Andrew: Lancet, 1907, p. 213: Two cases. Case 1, single kidney, death. Case 2, incision, drainage, recovery.
 Geauert. Kiel, 1901: One case, incision, drainage, recovery.
 Barclay: Louisville Month. Jour. Med. and Surg., January, 1907, p. 253. *Four cases.* Case 1, incision, drainage, recovery. Case 2, nephrectomy (also had ruptured colon and peritonitis), death. Case 3, nephrectomy (also had tuberculosis), death. Case 4, incision, drainage, death.
3. Annals of Surgery, 1896, xxiv, 138.

hemorrhage was treated promptly with calcium sulphid and hydrastis. The hemorrhages disappeared. Occasionally during the spring of 1907 there was a slight hemorrhage, which received the treatment mentioned, and yielded as stated. After the spring of 1907 there was no recurrence, and the patient presented the normal appearance of a healthy boy.

CONCLUSIONS

1. The condition was clearly not hemophilic.
2. The condition perhaps might be called a constitutional scurvy, as opposed to a dietetic scurvy; but if so, it was without the epiphyseal and other scorbutic characters.
3. It seemed certain that there were no rheumatic factors.
4. The absence of blood examination was a serious omission.
5. The unsolved question is: Was the disorder fundamentally due to hemic abnormality, vascular abnormality, or both?
6. Calcium sulphid and hydrastis apparently influenced the condition favorably.

POLYDACTYLISM EXTENDING THROUGH FIVE SUCCESSIVE GENERATIONS

A. G. BLODGETT, M.D.
WARE, MASS.

It has been my intention for years to report this case of an evident atavistic tendency as it is unique in character. Now that it reappears in the fifth successive generation it would seem to be proper that it be reported in order that it may go on record as an evident "freak" in Nature's law of hereditary descent.

Generation 1.—This malformation manifested itself in a single male, in a supernumerary thumb on the right hand and an additional finger on the outer side of the little finger of the left hand. This man lived to be 92 years of age and never married. He had evident pride in his multiplicity of members and bore the inconveniences with a commendable patience.

Generation 2.—His niece had a supernumerary finger on her left hand. She had it removed when a child.

Generation 3.—The grandnieces had each an additional finger on the left hand, but the parents had them removed when the children were infants.

Generation 4.—Of eight children in three families this peculiarity is present in only one, a girl, who had a supernumerary toe on the outer side of the little toe of the right foot, which I removed when she was six months old.

Generation 5.—In this generation, so far, there are three children, all in one family; in one only, a boy, is this hereditary peculiarity present; he has a superfluous toe.

In my opinion the woman of the second generation believed that her child or children would have this malformation, and the daughters both manifested it. The two sons did not, nor did their children after them.

Of the five children of the older of the two grandnieces but one, a girl, showed the family characteristic. She had never married. Her older sister married and only one of her three children, a boy, showed polydactylism.

The fear of this peculiarity runs through all the female members of each succeeding generation and a lively interest is manifested in each new comer. As a matter of fact, it has never shown itself outside of the females in any generation but the first and the fifth.

Is it the result of a strong maternal impression or a mere coincidence, or does it bear out the principle of atavism?

20 Park Street.

A NEW VAGINAL DOUCHE

GEORGE H. TUTTLE, M.D.
BOSTON

The device here described consists of a pear-shaped dilatable rubber bag perforated along the long axis of its fundus by forty small holes, and tapering at its neck so as to act under the influence of the downward pressure of the water in the vagina as a plug for the vulvar orifice. Its elasticity renders it adaptable to practically any size or shape of orifice, while its extreme flexibility prevents any harmful degree of pressure in the vagina. Being made from the finest rubber it is readily dilatable to more than twice its natural size. It serves as a simple attachment to any syringe being placed on the adult rectal nozzle, or may be attached to a bulbar nozzle of similar caliber, being secured by a piece of silk or soft string. These points are *plainly shown in the illustrations.*

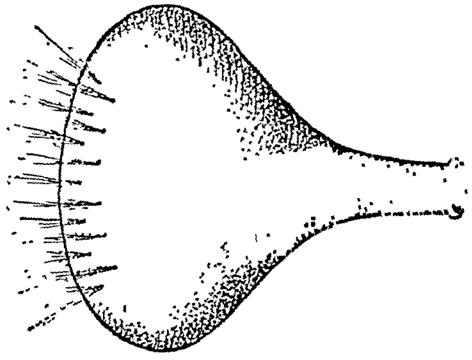

Fig. 1.—The dilatable rubber bag.

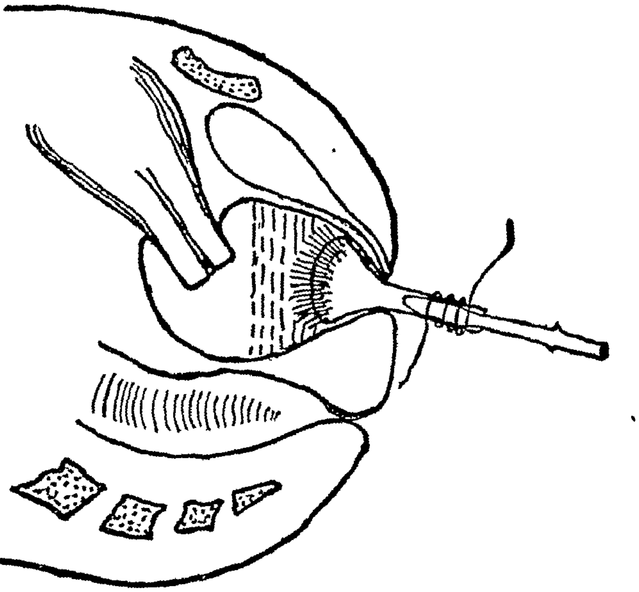

Fig 2.—Diagrammatic representation of douche in use.

The amount of expansion of the douche bag is controlled entirely by the elevation of the reservoir. For a common douche, unless otherwise ordered, it is from three to four feet.

The douche bag may be made by traction to fit the vaginal outlet perfectly, or, as in the case of a long douche, may lie loosely, allowing water to flow in and out. A two-quart syringe bag is usually used, and at the end of the douche this is lowered, and the small bag collapses and falls out.

There are two uses for this device to give, (1) the regular warm water vaginal douche; (2) the medicated douche.

When used for a simple warm douche of short duration (from 3 to 5 minutes), it produces hyperemia, and by the longer douche (from 15 to 20 minutes), produces ischemia of the pelvic organs. By its use the application of warm or hot water is rendered accurate and scientific. By prescribing the duration and temperature of the douche it renders the result certain.

The medicated douche is made more effective by the dilatation of the vaginal mucous membranes, and the opening of the fold therein as the bag expands, and thus retains the solution in the vagina under pressure for any desired length of time. In gonorrheal vaginitis, a preliminary douche of 15 minutes, of simple hot water poultices the membranes and relieves pain, after which drug solutions may be applied to the thoroughly cleansed parts.

Lastly, this douche, or rather its sprinkle, is very gentle, as the pressure from the reservoir is held under control by the elasticity of the bag, and is finally divided into forty different parts represented by the separate streams.

Some advantages to the patient are: (1) In traveling, cumbrous douche apparatus need not be carried; (2) it is effective in the sitting as well as in the recumbent position; (3) No assistants are needed; (4) There is great saving in expense, the cost of the bag is inconsiderable; (5) Can be sterilized by boiling.

172 Tremont Street.

ACUTE PANCREATITIS DIAGNOSED DURING LIFE

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ARGENTA, ARK.

Patient.—T. L., aged 31, a cook, Company C, Sixteenth Infantry, U. S. Army.

Complaint.—Rheumatism and ringworm.

History.—Family history was negative and his childhood was healthy. In the summer of 1898, at Manila, P. I., he had diarrhea lasting three months. There was no blood or mucous in stools. In December, 1898, he had biliary colic with jaundice lasting four weeks. In August, 1899, he had dengue and was ill for twelve days. In June, 1900, he had an attack of dysentery lasting three months, with blood and mucous in stools. In March, 1901, he began to have chills and fever which lasted until June, 1903, when sprue developed, lasting until August, 1903. In November, 1903, he had dhobie itch. January, 1905, "ringworm" (psoriasis) began and lasted until November, 1907. On April 15, 1908, he had gonorrhea and was in hospital for 24 days. In June, 1908, came the first attack of sciatica on the right side. This has annoyed him ever since, being betrer and worse at times. In August, 1908, psoriasis developed. From Oct. 1, to Oct. 21, 1908, the patient was on march and was troubled much by rheumatism and sciatica. On Oct. 22, 1908, he came on sick report, and a diagnosis was made of "psoriasis and sciatica on right side."

Present Illness.—On Oct. 31, 1908, at 3 a. m., the patient was suddenly awakened by a violent attack of orthopnea and dyspnea; he sat up in bed, grasping at the precordial region with both hands. He said that he could not lie down on account of difficult breathing and pain. His face was deeply congested. At intervals he would get up and walk the floor, bent over with severe pains. He was nauseated but did not vomit. The pain extended from the left epigastrium to the heart and up to the left clavicular region. The man said that it was like a vise gripping his heart. He had collapse symptoms with rapid pulse, short respirations, and cold sweat. Temperature varied from 100 to 101 F.

Diagnosis.—The first diagnosis thought of was pulmonary embolism, but careful percussion and auscultation of the chest failed to support it. Gallstones, renal colic, gastric ulcer, appendicitis, and intestinal obstruction were easily eliminated. Tabetic crisis was reluctantly relinquished for want of support. The diagnosis was therefore narrowed down to angina pectoris and pancreatitis.

Course of Disease.—At 7 a. m. the patient got out of bed and said that the pain shot from his heart to his left jaw. It extended up the left neck muscles to the base of the skull. It was severe at the left clavicle, and made the jaws clamp as in tetanus. The jaws were not painful. Nitroglycerin and amylnitrite were used freely without effect. This weakened the probability of angina. Morphin was given frequently in ¼ grain doses and modified but did not relieve the pain. The stools showed nothing abnormal. Urine examination was negative.

Nov. 1, 1908: Symptoms continued about the same.

Nov. 2, 1908: A positive diagnosis of pancreatitis was made, on the strength of the sudden onset, anginoid pains, temperature range from 99 to 101 F., left epigastric tenderness, sciatica, nausea, shock and collapse. These, with the absence of any other positive symptoms, gave a pretty clear picture of pancreatitis. This diagnosis, although suspected from the first, was not made positive until now, after having read all the available literature.

Nov. 3, 1908: Symptoms continued.

Nov. 4, 1908: Patient consented to operation.

Operation.—A rectus incision was made about four inches long, one inch to left of the median line, above the umbilicus. The omentum was torn through in its thin part. The stomach and transverse colon coming into view were separated, and between them was seen something pulsating like an aneurism and oozing blood. To determine the pancreas the spleen was found. From this the tail of the pancreas was traced up to the pulsating body, which was a vascular, hemorrhagic and pulsating pancreas. On closer inspection the lobulations could be seen. The organ was so vascular that no incisions were made for fear of dangerous hemorrhage. The omentum did not show any fat necrosis. The gall bladder and ducts were palpated and found negative. Rubber and gauze drains were applied to the pancreas, and the wound was closed with catgut and silkworm gut. Chloroform and ether were the anesthetics.

Postoperative History.—When the patient regained consciousness the symptoms were milder. There was a free flow of colorless fluid from the drain which wet the dressings and irritated the skin.

Nov. 5, 1908: The patient was a little better but still badly shocked.

Nov. 6, 1908: Dressings and drainage were changed. The psoriasis had improved. Other symptoms gradually improved.

Nov. 20, 1908: The temperature, which had varied from 99 to 101 F., reached normal and remained so.

Dec. 1, 1908: The pulse, which had been very rapid and weak at first and which ran about 100 a minute for three weeks, dropped to 78 a minute, and morphin which had been gradually decreased in amount was now discontinued.

Dec. 20, 1908: Sciatica troubled the patient. The psoriasis had disappeared.

Jan. 17, 1909: Patient was sent to duty, all symptoms gone.

Mar. 4, 1909: Patient has been well since but complains of sciatica as stormy weather is approaching.

The interesting features of the case are: (1) the usual accompaniment of pancreatitis with previous biliary disease; (2) sciatica as one of the recognized symptoms of pancreatitis; (3) the disappearance of the psoriasis with the improvement of the pancreatic symptoms; (4) the anginoid character of the attack which makes one believe that in all unexplained anginoid attacks pancreatitis should be suspected; (5) the free use of morphin with favorable results, although some writers object to its use.

AN UNDEVELOPED FIRST DORSAL RIB SIMULATING A CERVICAL RIB

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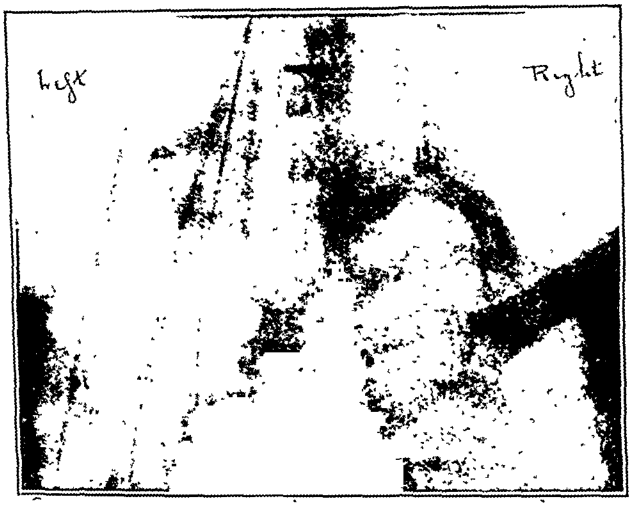
Radiographer to Charity Hospital and Cleveland City Hospital
CLEVELAND, OHIO

The accompanying radiograph shows a rather unusual and interesting anomaly:

The patient, Van S., was a white man, aged 40. In the course of the routine physical examination there was discovered a hard immovable mass in the left supraclavicular space. It could be traced to the back of the neck and felt like a cervical rib. When the left shoulder was raised the mass disappeared behind the clavicle, showing that there was no attachment. There was no palpable difference between the right and left sides of the upper part of the sternum, except that the left clavicle seemed to be slightly lower than the right. The pulsation of the subclavian artery could be felt in the supraclavicular space and a soft thrill was palpable. The left radial pulse was not affected. The swelling apparently never caused symptoms. No other physical anomalies were discovered.



Undeveloped first dorsal rib simulating a cervical rib.

A similar case was reported by Dr. W. W. Keen.[1] Wiedersheim in the "Der Bau des Menschen" shows a drawing of another case of an undeveloped first rib and points out the tendency of evolution to a shortening of the thorax and a decrease in the number of thoracic ribs.

X-RAY IN ERYTHEMA MULTIFORME

W. S. LAIN, M.D., OKLAHOMA CITY, OKLA.

As the text-books on dermatology, so far as I am aware, do not mention the *x*-ray in treatment of erythema multiforme, this report may be of interest:

Mrs. O. was referred to me by another physician. She had been suffering for two weeks with a rather extreme case of erythema multiforme, involving the extensor surfaces of the fingers, the hands and the arms to the elbows. Many of the usual internal eliminants and local applications had been tried without any subsidence of the symptoms. I began the application of the *x*-ray on Jan. 23, 1909, and continued giving treatments, each ten minutes in length, on January 24, 25 and 28. By the last date the eruption had disappeared except for the brownish color. On February 10 there was a recurrence of all the former trouble at the same localities. I renewed the *x*-ray treatment on February 11, 12 and 13. All indications of the disease then ceased, and there has been no recurrence since. No other treatment was used except salines internally and plain gauze bandages moistened with calamine lotion externally, which had been used from the beginning.

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[1] Am. Jour. Med. Sc., February, 1907, p. 193.

Therapeutics

OTITIS MEDIA

In spite of the increased knowledge of the seriousness of any inflammation in the middle ear, and in spite of the increased tendency of middle-ear inflammations to cause mastoid trouble, since the influenza germ has been prevalent in this country the laity, and even (we regret to say) many physicians still neglect an ear inflammation. So much can be done in the incipiency of a middle-ear congestion, and evacuation of the primary exudate is so sure to prevent actual suppuration and serious trouble, that it is little less than astounding that the profession as a whole does not more strongly advocate, urge and carry out these preventive measures. It is also astonishing that mild inflammation in the middle ear, with more or less continuous discharge through a perforation in the drum, is allowed to become chronic without treatment and allowed perhaps to cause permanent deafness. Such neglect, it is also regrettable to say, occurs mostly in children too young to determine for themselves whether they will have permanent deafness the rest of their lives or be properly treated.

We insist to-day that every child should be vaccinated. There is plenty of agitation to prevent and control serious inflammations in the eyes of babies and children. There is gradually accumulating sufficient knowledge of the necessity for glasses for children with defective eyes. The seriousness of obstructive adenoid conditions in the nasopharynx is also being generally recognized. The necessity for fresh air and good hygiene for the prevention of tuberculosis is now most constantly in evidence. But an inflamed ear is very frequently, if it will only rupture, allowed to take care of itself. Nature's healing power often, fortunately, does effect a cure and the hearing is not impaired and serious middle-ear or mastoid trouble does not occur, but the chances of such a happy outcome are too uncertain and too precarious to be tolerated for one moment in this age of prophylaxis. As so aptly remarked by a surgeon of New York recently: Nature is working as hard to continue the growth of what we call pathogenic germs as she is to kill them and eradicate them for our health.

It is not the purpose of this article to advise exactly how an inflamed ear should be treated, as we believe that the average practitioner is not equipped to care properly for middle-ear inflammation, but we would urge the immediate reference of such inflammations to the ear specialist.

All kinds of bacteria may reach the middle ear, but the most frequent infections are the streptococcic and the pneumococcic. In a healthy ear the bacteria reach the tympanic cavity through the Eustachian tube, and this presupposes a nasopharyngeal infection and inflammation. Obstruction at the mouths of the Eustachian tubes, or swelling in the tubes, then inhibits the normal aëration of the tympanic chamber and predisposes to infection of the middle ear. Hence prophylaxis of middle-ear inflammations consists in the removal of obstructive adenoids in the nasopharynx, in the removal of obstructive hypertrophies of the nasal passages so as to cause proper nasal respiration and the correction, so far as possible, of nasal and nasopharyngeal chronic inflammations.

In acute inflammations of the nose and nasopharynx when the Eustachian tubes are likely to become obstructed and bacteria are likely to reach the middle ear, a proper cleansing of the nose and nasopharynx with warm, mildly antiseptic and alkaline sprays and gargles is the proper treatment. Nasal douches as generally applied are likely to force fluid, pus and bacteria into the middle ear, and, in fact, a douche should never be taken through the nostrils with any but the most gentle pressure. Snuffing mild, warm, alkaline fluids through the nostrils, or gently spraying and then snuffing, or possibly the pouring of such a fluid from a spoon or small vial into the nostrils can do nothing but good and no harm to the Eustachian tubes. Or gentle spraying into the nasopharynx with such solutions or gargling and throwing the head forward so that the liquid washes the roof of the pharynx, will also remove products of inflammation, pus and mucus from these parts and from the mouths of the Eustachian tubes.

If middle-ear congestion occurs the diagnosis must be made as to whether serum or other fluid is present or not. If fluid is present, as shown by bulging of the tympanic membrane and by deafness, incision of the drum must be immediately made. If no fluid is present in the tympanic cavity, but the drum shows congestion and there is pain, the following ear drops may be used:

℞.	gm. or c.c.		
Acidi borici	1		gr. xv
Glycerini	25	or	fl. ℥i
Aquæ ad	50		ad fl. ℥ii

M. et Sig.: Warm, and pour half a teaspoonful into the ear *once in three or four hours.*

This fluid should be held in the ear a minute or two and then *allowed to run out.* The *outer part of the* canal is then gently dried with absorbent cotton and a plug of cotton left in the orifice.

If preferred, either of the following prescriptions may be used:

℞.	gm. or c.c.		
Acidi borici	1		gr. xv
Tincturæ opii	5	or	fl. ʒiss
Glycerini	10		fl. ʒiii
Aquæ ad	25		ad fl. ℥i

M. et Sig.: Warm, and place a few drops in the ear every hour, if needed, and then plug with cotton.

Or:

℞.	gm. or c.c.		
Adrenalin chloridi	03		gr. ss
Glycerini	20	or	fl. ʒv
Aquæ ad	50		ad fl. ℥ii

M. et Sig.: Warm, and pour half a teaspoonful into the ear every three hours.

It should again be emphasized that treatment, even as simple as the above, should only be used to relieve congestion and pain, but such temporizing measures should not be used if the drum is bulging and there is liquid in the middle ear. The only treatment for this condition is incision.

Treatment after incision or after perforation of the drum, or of mastoid congestion, and of mastoid inflammation, belongs to the specialist. The restoration of a perfect drum and the recovery of perfect hearing after middle-ear disturbance, and especially after mastoid inflammation, marks a success as great as in any branch of medicine. The general physician's duty ends when he has referred a patient with either acute or chronic ear disturbance to the specialist, and after he has impressed on his patient that the time to prevent, if possible, deafness and the danger of a possible cerebral abscess is now. If the patient neglects his own treatment after warnings, he has only himself to thank, but let him never be allowed the opportunity to blame his physician.

INDICANURIA

The *formation and absorption of intestinal toxins due to fermentation and putrefaction of maldigested foods,* and largely, at least primarily, caused by a sluggish action of the bowels and consequent constipation is understood by all, but it is not frequently enough nor seriously enough considered as a cause of general bad feelings. These toxins doubtless vary in kind as well as in the symptoms which they cause. These symptoms may be headaches; disinclination to do mental work; sleeplessness, or sleep disturbed by dreams; coated tongue; loss of appetite; various kinds of neuralgias or joint pains; myalgias; muscular weakness or debility; a tendency to dry skin on the one hand, or to sweatings on the other; itchings; fornications; urticaria, and irritability of the bladder.

An indication of the intestinal condition can readily be obtained by *an examination of the urine for indican,* but this examination is *too often omitted.* There can be constipation without indicanuria, and there can be indicanuria when there are frequent movements of the bowels. It would seem, then, advisable to examine for indican the urine of patients who are vaguely miserable, or do not feel well, and yet have no tangible illness. A *simple, easy office method* is as follows:

Place in an ordinary test tube 1 c.c. (15 minims) of chloroform, then fill the test tube half full with equal parts of the urine to be tested and concentrated hydrochloric acid. To this add slowly, shaking meanwhile, the official solution of peroxid of hydrogen. If indican is present, the mixture more or less rapidly assumes a bluish color, which will be taken up by the chloroform, if the test tube is allowed to stand for a few moments, and show as a blue mass at the bottom of the test tube. The intensity of this blue color will denote approximately the amount of indican present. The bluer the chloroform segment in the test tube, the greater the amount of indican.

It is the liver which generally prevents both normal and abnormal products of digestion from reaching the general circulation in such form as to cause toxic irritations or poisonings. If the liver is repeatedly or continuously disturbed in its function by efforts to render innocuous an abnormal amount of these toxins it sooner or later becomes irritated and congested to the extent of doing this work imperfectly, and then these toxins reach the general circulation and cause symptoms.

Abnormal fermentation or putrefaction having been diagnosed as taking place in the intestines, the indications for treatment are, of course, calomel, at least once, followed by a saline, and the saline is perhaps well repeated on one or two successive mornings, or perhaps once a week for some time. The diet needs generally to be modified, and *especially should meat be abstained from* temporarily, or at least limited to once a day. Such restrictions of diet need not be long continued if there is no organic reason. Three small doses a day of salol (phenylis salicylas), each perhaps 0.30 gram (5 grains), will aid in inhibiting the fermentation in the intestines.

It has been noted that massage of the abdomen, especially of the liver, and electrical applications to the abdomen (Albert Abrams, *Medical Record,* April 25, 1908) will increase the amount of indican in the urine, if indican was previously present. This shows that the intestines and liver harbor indican. A day or two after such massage the urine, if the diet is corrected, will be free from indican.

New and Nonofficial Remedies

Since the publication of the book 'New and Nonofficial Remedies 1909' the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association Their acceptance has been based largely on evidence supplied by the manufacturer or his agent and in part on investigation made by or under the direction of the Council Criticisms and corrections to aid in the revision of the matter before publication in the book are asked for

The Council desires physicians to understand that the acceptance of an article does not necessarily mean a recommendation but that so far as known it complies with the rules adopted by the Council

W A PUCKNER Secretary

(Continued from page 1218)

ENZYMOL—A glycerin aqueous acid extract prepared directly from the mucous membrane of the fresh animal stomach free from alcohol but containing a trace of thymol and having an acidity due to combined hydrochloric acid equivalent to 0 26 to 0 3 per cent of actual hydrochloric acid It contains no free hydrochloric acid but does contain a slight excess of protein over that combined with the acid It is adjusted to a definite proteolytic power and contains 25 per cent of glycerin by weight

Enzymol is a light straw colored fluid

The presence of proteins is shown by coagulation by heat or by the addition of alcohol The proteolytic power when acidified and tested by the method of the U S P for pepsin should be such that 4 Cc will dissolve 800 Gm of coagulated egg albumin in two and one half hours

Action and Uses—When applied to morbid tissues enzymol is said to have the power of dissolving them by its proteolytic action even without the addition of acid It is said to dissolve necrotic bone by virtue of the combined acid which it contains Its physiologic action is said to cease in contact with living tissue

Enzymol is said to be useful as an application to purulent and necrotic surfaces for the removal of the morbid materials

Dosage—It is made ready for use by the addition of one half to one or two volumes of water, for the solution of necrotic and carious bone it may be applied undiluted

Manufactured by Fairchild Bros & Foster, New York U S trademark No 44,769

SABROMIN — Dibrombehenate of Calcium. — Sabromin, $(C_{21}H_{41}Br_2COO)_2Ca = C_{44}H_{84}O_4Br_4Ca$, is the calcium salt of dibrombehenic acid

It is prepared from erucic acid by the addition of bromine and transformation of the dibrombehenic acid thus obtained into the calcium salt

Sabromin is a colorless odorless and tasteless powder claimed to contain about 29 per cent bromin and about 3 8 per cent calcium It is insoluble in water and alcohol, soluble in ether, acetone benzol ligroin and tetrachloride of carbon On heating on platinum foil it is decomposed with liberation of bromine

Tests Sabromin is recognized by its solubilities and the liberation of bromine on heating

Action and Uses—Sabromin is converted into dibrombehenic acid in the stomach, a substance which is free from any action on that organ, but which is absorbed from the intestine Its effect is less rapid than that of the bromides, but more prolonged It is said to be devoid of the disadvantages of the bromides, such as their unpleasant taste, irritating action on the stomach, and systemic by effects

Sabromin is indicated in the same class of cases in which the bromides are useful

Dosage—The dose is about the same as that of potassium bromide

Manufactured by Farbenfabriken vorm Friedr Bayer & Co, Elberfeld Germany (Farbenfabriken of Elberfeld Co, New York). U S patent and trademark applied for

AGARIC ACID—Acidum Agaricum.—Acidum Agaricinicum (Pharm Helv edit 4) Agaricinum[1] (Pharm Danica edit. 1907) A tribasic acid $C_{19}H_{36}OH\ (COOH)_3 + 1\frac{1}{2}H_2O$ derived from Polyporus officinalis, Fries (Order Hymenomycetes, fam Polyporeæ) a fungus growing on the European Larch and other species of larch

Agaric acid occurs as an odorless, tasteless glistening micro crystalline powder which melts at 141 5 142° C (286 7 287 5° F) When heated to a high temperature it is volatilized in the form of a white pungent vapor

Agaric acid is slightly soluble in cold water, when heated with 50 100 parts of water it becomes gelatinous and finally dissolves to a weakly acid solution which possesses the characteristic property of foaming strongly when shaken The addition of acids to hot aqueous solutions of agaric acid causes white flocculent precipitate but a tannic acid solution (1 100) produces neither coloration nor turbidity. With alkalies agaric acid forms water soluble salts

Agaric acid is slightly soluble in ether chloroform carbon disulphide and in 130 parts 90 per cent alcohol It is soluble in hot acetic acid acetic ether oil of turpentine and in about 10 parts of alcohol

If to a mixture of about 0 2 gm of agaric acid with 3 Cc of water 2 drops of alcoholic alpha naphthol solution (1 8) are added and then gradually 5 Cc of concentrated sulphuric acid added the mixture should not take on a marked blue violet color

If 0 10 gm agaric acid be boiled with 10 Cc dilute sulphuric acid a turbid solution results from which on standing on a water bath oily drops separate and they crystallize on cooling

0 1 gm agaric acid upon ignition should leave no weighable residue

Action and Uses—Agaric acid is a local irritant and in large doses produces vomiting and purging and death through central paralysis It paralyzes the peripheral nerves of the sweat glands, arresting the secretion of sweat. It is used to arrest colliquative sweats The experience of most clinicians is favorable but some report that they were unable to obtain any favorable effects The action appears in a few hours and is not lasting Agaric acid is one twentieth as active as atropine and does not influence other secretions

Dosage—The maximal single dose of agaric acid should not exceed 0 03 gm (½ grain) and the total daily dose should not exceed 0 10 gm (1½ grains) (Pharm Helv) Owing to its irritant action it can not be given hypodermically

CONIINE HYDROBROMIDE—Coniinæ Hydrobromidum.—The hydrobromide, $C_8H_{17}N\ HBr$ of an alkaloid found in conium.

Coniine hydrobromide occurs as colorless transparent, glistening rhombic crystals or as a white crystalline powder, melting at 210 214° C (410 417 2° F) It is soluble in two parts of water in three parts of alcohol, and in ether alcohol, but insoluble in ether The solutions are colorless and neutral The salt contains 61 09 per cent of coniine

Evaporated with an excess of sulphuric acid, coniine hydrobromide becomes red violet blue and finally brown An aqueous solution of the salt mixed with magnesium carbonate or oxide, and shaken with carbon bisulphide colors the latter yellow Addition of silver nitrate solution to a solution of coniine hydrobromide causes precipitation of yellow silver bromide, Mayer's reagent precipitates a reddish brown body and tannic acid a yellowish white compound Coniine hydrobromide should burn when ignited leaving no residue

Action and Uses—Coniine hydrobromide paralyzes the peripheral endings of the motor nerves, producing an ever increasing muscle weakness To a less degree it affects the sensory nerves, and with lethal doses consciousness is retained to the last It probably depresses the spinal cord feebly and usually dilates the pupils In lethal doses it lowers the temperature, but in therapeutic doses it is said to increase it, convulsions may appear and death results from paralysis of respiration.

Coniine hydrobromide may be used for the same purpose as conium It has been tried in chorea, paralysis agitans, whooping cough, and is said to produce a condition of calm and relaxation in maniacal and hysterical excitement

Dosage—0 001 0 003 Gm (1/60 to 1/20 grain) three times a day Maximum single dose 0 005 Gm. (1/12 grain), maximum daily dose 0 015 Gm (¼ grain) For hypodermic use a 5 per cent solution is used

ARTICLES ACCEPTED FOR N. N. R. APPENDIX

Sharp & Dohme, Baltimore, Md.

Compressed Tablets Anesthesin, 2½ grains—Each tablet contains anesthesin in 0 162 Gm (2½ grains)

Solution Atoxyl, 10% (Sterilized)—Each 100 Cc contain · Atoxyl 10 Gm (each fluidounce contains Atoxyl, 48 grains) dissolved in distilled water

Solution Atoxyl, 10% with Novocaine, 1% (Sterilized)—Each 100 Cc contain Atoxyl 10 Gm and Novocaine 1 Gm (each fluidounce contains Atoxyl 48 grains and Novocaine 4 8/10 grains) dissolved in distilled water

Compressed Tablets Atoxyl and Quinine Comp—Each tablet contains Atoxyl 0 01 Gm (1/6 grain) Quinine hydrochlor 0 022 Gm (⅓ grain), Strych nitrate 0 0043 Gm (1 150 grain), Ferrous carbonate mass (Blaud) 0 162 Gm (2½ grains)

Compressed Tablets Benzosol, 2½ grains—Each tablet contains benzosol 0 162 Gm (2½ grains)

Compressed Tablets Benzosol and Codein—Each tablet contains Codeine Sulph 0 0054 Gm (1/12 grain) and Benzosol 0 162 Gm (2½ grains)

Compressed Tablet Blaud with Atoxyl—Each tablet contains Ferrous carb mass (Blaud) 0 162 Gm (2½ grains) and Atoxyl 0 022 Gm (⅓ grain)

Compressed Tablets Pyramidon 1½ gr—Each tablet contains Pyramidon 0 097 Gm (1½ grains)

Compressed Lozenges Orthoform, 1 gr—Each Lozenge contains Orthoform 0 065 Gm (1 grain)

(To be continued)

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[1] The substance commonly sold as agaricin is an impure alcoholic extract

THE ATLANTIC CITY SESSION

AMERICAN MEDICAL ASSOCIATION, SIXTIETH ANNUAL SESSION, ATLANTIC CITY, JUNE 8-11, 1909.

OFFICIAL CALL

Sixtieth Annual Session of the American Medical Association, Atlantic City, N. J., June 8-11, 1909

The sixtieth annual session of the American Medical Association will be held on Tuesday, Wednesday, Thursday and Friday, June 8, 9, 10 and 11, 1909, at Atlantic City, N. J.

The House of Delegates will convene at 10 a. m., Monday, June 7. In the House, the representation of the various constituent associations for the years 1907, 1908 and 1909 is as follows:

Alabama	3
Arizona	1
Arkansas	2
California	3
Colorado	2
Connecticut	2
Delaware	1
Dist. Columbia	1
Florida	1
Georgia	2
Hawaii	1
Idaho	1
Illinois	7
Indiana	4
Iowa	3
Kansas	3
Kentucky	3
Louisiana	2
Maine	1
Maryland	2
Massachusetts	6
Michigan	4
Minnesota	2
Mississippi	2
Missouri	4
Montana	1
Nebraska	2
New Hampshire	1
New Jersey	3
New Mexico	1
New York	11
Nevada	1
North Carolina	3
North Dakota	1
Ohio	6
Oklahoma	2
Oregon	1
Pennsylvania	8
Rhode Island	1
South Carolina	2
South Dakota	1
Tennessee	2
Texas	5
Utah	1
Vermont	1
Virginia	3
Washington	1
West Virginia	1
Wisconsin	3
Wyoming	1
Philippine Islands	1

The twelve sections of the American Medical Association, the Medical Department of the Army, the Medical Corps of the Navy and the Public Health and Marine-Hospital Service are entitled to one delegate each.

The General Meeting, which constitutes the opening exercises of the scientific functions of the Association, will be held at 10:30 a. m., Tuesday, June 8.

The Registration Department will be open from 8:30 a. m. until 5 p. m., on Monday, Tuesday, Wednesday and Thursday, June 7, 8, 9 and 10, and from 9 to 10 a. m., on Friday, June 11.

HERBERT L. BURRELL, President.

GEORGE H. SIMMONS, General Secretary.

HOUSE OF DELEGATES

Membership of the Legislative Body of the American Medical Association, 1909

As a number of the state associations have not yet held their meetings for 1909, it is impossible, at this time, to give a complete list of the members of the House of Delegates for the Atlantic City session. The following is a list of the hold-over delegates and of the newly elected members who have been reported to THE JOURNAL up to the time of going to press:

ARKANSAS

C. C. Stephenson, Little Rock.

CALIFORNIA

O. D. Hamlin, Oakland.

COLORADO

Crum Epler, Pueblo.
Edward Jackson, Denver.

CONNECTICUT

Everett J. McKnight, Hartford.

DELAWARE

James H. Wilson, Dover.

DISTRICT OF COLUMBIA

G. Wythe Cook, Washington.

FLORIDA

J. *Harris Pierpont,* Pensacola.

IDAHO

E. W. Kleinman, Hailey.

ILLINOIS

R. T. [illegible] Chicago.
J. F. [illegible]
L. H. [illegible]
E. W. Weis, *Ottawa.*

INDIANA

W. N. Wishard, Indianapolis.
Edwin Walker, Evansville.
G. W. Thompson, Winamac.
Harry C. Sharp, Indianapolis.

IOWA

G. E. Crawford, Cedar Rapids.
M. J. *Kenefick, Algona.*

KANSAS

J. E. Sawtell, Kansas City.
Geo. E. Tooley, Washington.

KENTUCKY

L. S. McMurtry, Louisville.
W. W. Richmond, Clinton.
A. T. McCormack, Bowling Green.

LOUISIANA

Oscar Dowling, Shreveport.

MAINE

Eugene C. Holt, Portland.

MARYLAND

G. Lane Taneyhill, Baltimore.

MASSACHUSETTS

H. D. *Arnold, Boston.*
J. A. Gage, Lowell.
O. J. Brown, North Adams.
J. L. Morse, Boston.
R. P. M. Ames, Springfield.
C. E. Durant, Haverhill.

MICHIGAN

A. M. Hume, Owosso.
T. A. Felch, Ishpeming.
F. W. Robbins, Detroit.
S. C. *Graves, Grand Rapids.*

MINNESOTA

R. C. Dugan, Eyota.
Arthur Sweeney, St. Paul.

MISSISSIPPI

H. L. Sutherland, Rosedale.

MISSOURI

C. Lester Hall, Kansas City.
J. D. Griffith, Kansas City.

NEBRASKA

Harold Gifford, Omaha.

NEVADA

B. F. Cunningham, Reno.

NEW HAMPSHIRE

Wm. T. Smith, Hanover.

NEW JERSEY

Claudius R. P. Fisher, Bound Brook.
Frank D. Gray, Jersey City.
Luther M. Halsey, Williamstown.

NEW MEXICO

R. E. McBride, Las Cruces.

NEW YORK

E. B. Angell, Rochester.
J. C. Bierwirth, Brooklyn.
D. C. Moriarta, Saratoga.
Floyd M. Crandall, New York.
A. Vander Veer, Albany.
A. T. Bristow, Brooklyn.
Charles Jewett, Brooklyn.
W. S. Ely, Rochester.
E. H. Bartley, Brooklyn.
H. L. Elsner, Syracuse.
J. E. Sadlier, Poughkeepsie.

NORTH CAROLINA

J. F. Highsmith, *Fayetteville.*
H. T. Bahnson, Winston Salem.
Albert Anderson, Raleigh.

OKLAHOMA

C. S. Bobo, Norman.

OREGON

Andrew C. Smith, Portland.

PENNSYLVANIA

Alexander R. Craig, Philadelphia.
Philip Y. Eisenberg, *Norristown.*
George W. Guthrie, Wilkes-Barre.
Edward B. Heckel, Pittsburg.
Thomas D. Davis, Pittsburg.
William L. Estes, South Bethlehem.
F. W. Frankhauser, Reading.
Samuel Wolfe, Philadelphia.

RHODE ISLAND

John Champlin, *Westerly.*

SOUTH CAROLINA

Walter Cheyne, Sumter.
R. S. Cathcart, Charleston.

SOUTH DAKOTA

R. D. *Alway, Aberdeen.*

TEXAS

C. E. *Cantrell, Greenville.*
S. T. Turner, El Paso.

UTAH

S. C. *Baldwin, Salt Lake City.*

VERMONT

J. N. Jenne, Burlington.

VIRGINIA

Wm. E. Anderson, Farmville.
J. Shelton Horsley, Richmond.

WASHINGTON

J. R. Yocum, Tacoma.

WEST VIRGINIA

O. F. Covert, Moundsville.

WISCONSIN

L. H. Pelton, Waupaca.
Karl Doege, *Marshfield.*
C. A. Richards, Rhinelander.

SECTION DELEGATES

PRACTICE OF MEDICINE

George Dock, Ann Arbor, Mich.

OBSTETRICS AND DISEASES OF WOMEN

J. H. Carstens, Detroit.

SURGERY AND ANATOMY

John T. Bottomley, Boston.

OPHTHALMOLOGY

T. A. Woodruff, Chicago.

LARYNGOLOGY AND OTOLOGY

H. W. Loeb, St. Louis.

NERVOUS AND MENTAL DISEASES

T. H. Weisenburg, Philadelphia.

STOMATOLOGY

G. V. I. Brown, Milwaukee, Wis.

CUTANEOUS MEDICINE AND SURGERY

R. R. Campbell, Chicago.

DISEASES OF CHILDREN

R. B. Gilbert, Louisville, Ky.

HYGIENE AND SANITARY SCIENCE

Clarence L. Wheaton, *Chicago.*

PHARMACOLOGY AND THERAPEUTICS

M. H. Fussell, Philadelphia.

PATHOLOGY AND PHYSIOLOGY

H. A. Christian, Boston.

REGISTRATION

The Registration Department will be on Young's Old Pier. It will be necessary for a member of the Association to register in order to obtain the official badge and program. No one will be admitted to any entertainment without a badge. Members are urged to register as soon as they can name their hotels.

The Registration Department will be open from 8:30 to 5 on Monday, Tuesday, Wednesday and Thursday, June 7, 8, 9 and 10, and from 9 to 10 a. m. on Friday, June 11.

Attention is called to the following directions:

1. Each physician desiring to register will first fill out a registration card.
2. Each member who has paid his annual dues in full will present his pocket card and registration card at a window marked "Registration by Receipt."
3. The registration of members who have paid their dues, but who have failed to bring their pocket cards, will be delayed while the records are consulted. Hence, be sure to bring your "pocket card."
4. Members who have not paid their dues will present registration card and make payment at a window marked "Cash."
5. Each applicant for membership will present his registration card at a window marked "New Members," with a certificate of membership in his state society. Prospective members, however, will save delay and annoyance by sending in their applications before the session. All such applications should be mailed to the American Medical Association, 103 Dearborn Avenue, Chicago, so as to arrive not later than May 25.
6. Each member on registration will receive a badge, a copy of the Official Program, and such other announcements as may be necessary.

RAILROAD RATES TO ATLANTIC CITY

Transportation Committee Announces Rate of One and a Half Fares for the Round Trip

The Transportation Committee announces that it has secured a rate of one and a half fares for the round trip to the Atlantic City session. Tickets are good to leave Atlantic City on the return trip up to June 19.

On a two cent basis, this rate is equivalent to the one fare rate on the old three cent basis. This rate applies to all parts of the United States, with the exception of the extreme western or Trans-Continental Passenger Association territory, for which a special rate has been made to the gate-ways of the Western Passenger Association territory, where the one and a half fare rate applies.

A special train (or more if necessary) has been arranged for from Chicago direct to Atlantic City, without change, via the Pennsylvania Lines. This is the only line reaching Atlantic City from the West without transferring and changing at Philadelphia. This train will leave Chicago Sunday, June 6, arriving at Atlantic City Monday, June 7.

A special train will be run by the Chicago & Alton from the West and Southwest, from Kansas City and St. Louis, and special sleepers by the Chicago, Milwaukee and St. Paul, from the Northwest to Chicago, connecting directly with the Pennsylvania Special, thus providing for all who wish the most direct routes and the best possible accommodations.

A stop over of ten days in Washington or Baltimore may be arranged for on the return trip, by requesting the same at the time ticket is purchased.

M. L. HARRIS, Chairman.

Other Trains

A special train will run from St. Louis Saturday, June 5, at noon, via the Big Four and the Chesapeake & Ohio Railways. Sunday will be spent at Hot Springs, Va. Special cars will connect with this train from Omaha, Kansas City, etc. Further details may be secured from Dr. Charles W. Fassett, St. Joseph, Mo.

Doubtless other trains will be arranged, of which we have received no notification.

LOCAL COMMITTEE ON ARRANGEMENTS

J. A. Joy, Chairman, 1920 Pacific Avenue.
E. J. Porteous, Secretary. E. H. Harvey, Treasurer.

COMMITTEE ON FINANCE.
W. B. Stewart, Chairman.
W. E. Darnall, George Scott, W. P. Conaway.

COMMITTEE ON HALLS AND MEETING PLACES.
Thomas G. Dunlap, Chairman.
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COMMITTEE ON ENTERTAINMENT.
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George Scott, Chairman.
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COMMITTEE ON BUREAU OF INFORMATION.
M. S. Ireland, Chairman.
J. C. McVay, T. G. Dunlap, A. D. Cuskaden, Victor Metzler.

COMMITTEE ON BADGES.
E. C. Chew, Chairman.
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COMMITTEE ON SCIENTIFIC EXHIBIT.
I. E. Leonard, Chairman.
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William E. Jonah, Chairman.
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F. W. Bennett, Chairman.
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Assistant Editor of Daily.—E. GUION.

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ATLANTIC CITY HOTELS

A List of the Hotels, Showing Rates and Location

The list of hotels published in this issue for the session of the American Medical Association and affiliated societies at Atlantic City, N. J., is cordially commended to all those who attend. It is furnished by the Local Committee of Arrangements, and comprises those which are assisting the local committee in defraying the expenses and in doing the things necessary to be done for the success of the meetings.

Those going to Atlantic City should engage their accommodations in advance direct with the hotel selected. The earlier this is attended to the better.

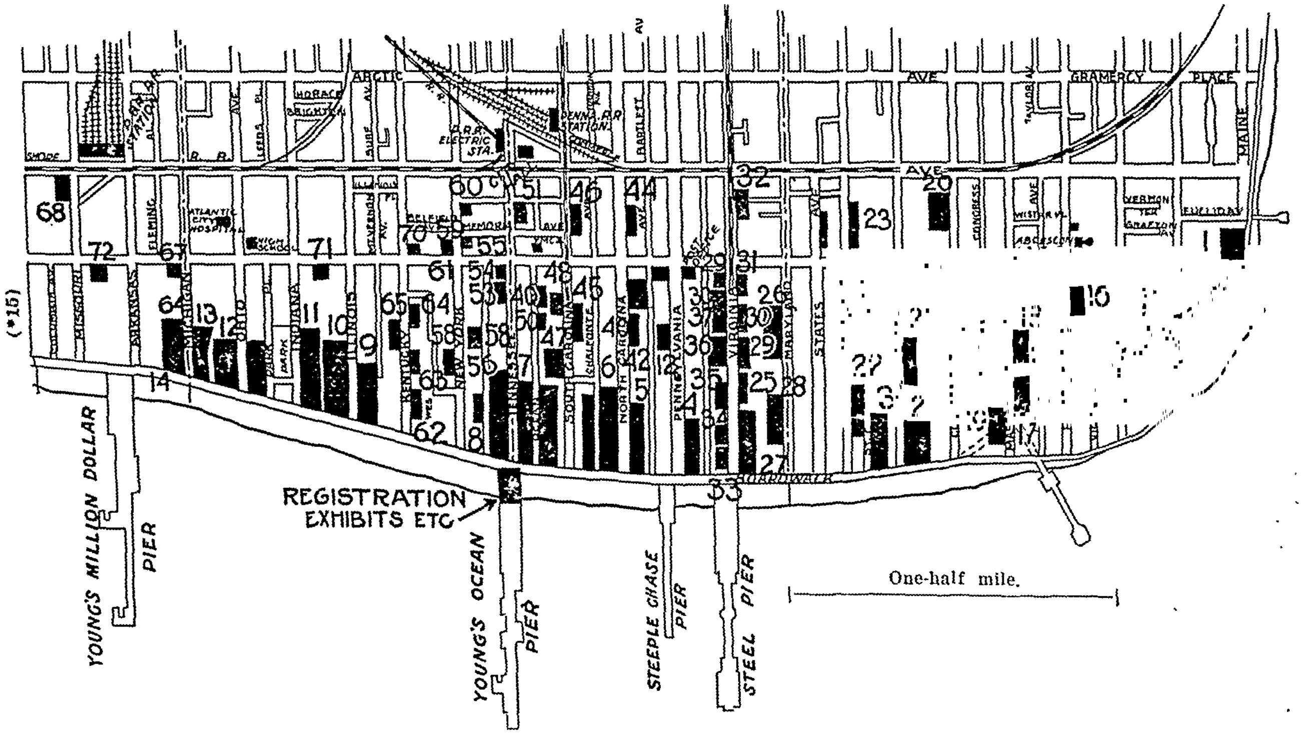
By securing hotel quarters well in advance there will be more satisfaction all around.

TABLE OF DAILY RATES AND ACCOMMODATIONS OFFERED BY ATLANTIC CITY HOTELS

		Rooms Without Private Bath. For 1 Person.		For 2 Persons.		Rooms With Private Bath. For 1 Person.		For 2 Persons.	
	Plan.	Single Room.	Double Room.	Double Room.	Extra Large Room.	Single Room.	Double Room.	Double Room.	Extra Large Room.
On the Boardwalk:									
Royal Palace	American	$3.50	$4-5	$7.00	$8.00	$5.00	$6.00	$10.00	$12.00
Rudolf	American	3.50	4.00	7.00	8.00	4.50	5.00	9.00	10.00
Rudolf	European	2.00	2.50	3.50	4.50	2.50	3.50	4.00	6.00
St. Charles	American	3-3.50	4-4.50	6.00	9.00	6.00	7-10	8.00	14.00
Seaside	American	3.50	4-5.00	7-8	...	5.00	6-7	10.00	12.00
Haddon Hall	American	3.50	5.00	6.00	8.00	6.00	7.00	10.00	12-16
Chalfonte	American	3.50	4.50	6-7	8.00	...	6.00	10.00	12.00
Poinsettia	European	1.50	2.00	3.00	4.00	2.50	3.50	4.00	5.00
Young's	European	1.50	2.00	3.00	3.50	2.50	3.00	4.00	5.00
Windsor	American	4.00	5.00	7.00	8.00	6.00	7.00	10.00	12.00
Windsor	European	2.00	3.00	4.00	5.00	4.00	5.00	6.00	7.00
Traymore	American	4.00	6.00	8.00	9.00	5.00 to	13.00	10.00 to	16.00
Brighton	American	4.00 to	7.00	8-12	12-16	6.50-9	...	11.00 to	18.00
Marlborough-Blenheim	American	4-6	5-7	8-10	9-11	6-8	7-9	10-12	12-20
Marlborough-Blenheim	European	2-4	3-5	4-6	5-7	4-6	5-7	6-8	8-16
Dennis	American	4-5	...	7-8	...	6-8	...	9-12	...
Shelburne	American	4-5	8.00	8-9	10.00	6-7	10.00	10-12	15.00
Shelburne	European	2 3	4.00	4-5	6.00	4-5	6.00	6-8	10.00
Chelsea	American	4.00	5.00	8.00	10.00	6.00	7.00	10.00	12.00
Rhode Island Avenue:									
Westmont	American	3.00	...	5.00	...	4.00	...	7.00	...
Massachusetts Avenue:									
Lelande	American	2.50	3.00	5.00	6.00	4.00	4.00	8.00	8.00
Lelande	European	1.00	1.25	1.75	2.25	2.50	3.00	4.00	4.00
Phillips House	American	2.00	2.50	4.00	5.00	...	...	...	...
New Avalon	American	1.50	2.00	4.00	...	...	...	...	...
New Avalon	European	1.00	...						
Connecticut Avenue:									
Troxell Hall	American	2.00	2.50	4.00	4.00	2.50	3.00	5.00	5.00
New Jersey Avenue:									
Pierrepont	American	3.00	3.50	6.00	7.00	3.50	4.00	7.00	8.00
St. Charles Place:									
Raleigh	American	3.00	...	5.00	6.00	4.00	...	7.00	8.00
Delaware Avenue:									
Leith Villa	American	1.25	1.50	2.50	3.50	...	...	...	...
States Avenue:									
The Hanlon	European	1.00	1.50	1.50	2.00	...	...	...	...
Maryland Avenue:									
Imperial	American	1.50-2	2.50	3-4	5.00	3.00	3.50	5-6	7.00
Imperial	European	1.00	1.50	1.50	2.00	2.00	...	3.00	...
Maryland Avenue:									
Allenhurst	American	2-2.50	3.00	2.00	2.50	...	...	...	...
Virginia Avenue:									
Islesworth	American	3.00	4.00	6.00	7.00	4.00	6.00	7.00	8.00
Islesworth	European	2.00	3.50	4.00	5.00	3.50	4.00	5.00	6.00
Ponce De Leon	American	2.50	3.00	5.00	6.00	3.50	4.50	6.00	7.00
Ponce De Leon	European	1.00	1.50	2.00	3.00	2.00	3.00	3.00	4.00
Avon Inn	American	2.50	3.50	4.00	6.00	3.00	5.00	6.00	8.00
Avon Inn	European	1.00	2.00	4-5	4-5	...	...	3-3.50	6-7
Berkshire Inn	American	2 2.50	2 2.50	2-3	2-3	...	...	...	...
Berkshire Inn	European	1-1.50	1-1.50	1.50-1	1.50-1	...	...	...	...
Victoria	American	1.50	...	3.00	...	2.50	...	...	2.50
Colonade	American	...	2.00	3.50	4.00	...	...	...	...
Colonade	European	...	1.00	1.25	1.50	...	...	...	...
Jackson	American	3-3.50	4.00	6-7	8.00	4.00	5.00	7-8	9.00
Jackson	European	1.50-2	2.50	3-4	5.00	3.00	4.00	4-5	6.00
Bothwell	American	3.00	3.00	5.00	6.00	4.00	5.00	8.00	9.00
Wiltshire	American	2.50	4.00	5.00	7.00	5.00	7.00	8.00	10.00
Morton	American	2.50-3	4-5	...	6.00	...	7-8	...	...
New Belmont	American	2.00	2.50-3	3.50	4-4.50	2.50	3.50	6.00	7.00
New Belmont	European	1.00	1.50	2.00	2.50	2.00	2.50	3.50	4.00
Shoreham	American	2.50	2.50	5.00	6.00	5.00	...	6.00	...
Clarendon	American	2.00	2.50-3	4.00	5-5.50	3.00	3.50	6.00	6.50-7
Sothern		2.50	3.00	5.00	6.00	4.00	5.00	7.00	8.00
Pennsylvania Avenue:									
Craig Hall	American	2.50	...	5.00	5.00	3.00	...	6.00	6.00
New Chatham	American	2.50	3.00	4.00	...	...	4.00	6.00	...
St. Clare	American	2.50	3.00	5.00	6.00	3.50	4.00	7.00	8.00
Hampton Terrace	American	2.50	...	4.00	5.00	...	...	...	...
North Carolina Avenue:									
Pembroke	American	1.00	1.00	2.00	2.50	...	...	...	...
Pembroke	European	.50	.50	1.00	1.50	...	...	...	...
Colonial	American	3.00	4.00	5.00	6.00	...	...	...	...
Colonial	European	2.00	2.50	3.00	4.00	...	...	...	...
South Carolina Avenue:									
Roxborough	American	2.00	...	4.00	...	...	...	...	...
Roxborough	European	1-1.50	...	2-3	...	...	...	...	...
Lloyd	American	1.50	2.00	3.00	3.00	...	...	...	...
Lloyd	European	1.00	1.25	2.00	2.00	...	...	...	...
Iroquois	American	2.50	3.00	4.00	5.00	3.00	3.50	6.00	7.00
Iroquois	European	1-1.50	1.50-2	2-2.50	2.50-3	2.00	2.50	[illegible]	4.00
Radnor	American	1.50	2.00	3.00	...	...	...	..	...
Radnor	European	.75	1.00	1.50	...	...	...	..	...
Ocean Avenue:									
Box Air	American	1.50	...	3.00	...	...	...	...	...
Renovo	American	2.00	...	3.00	...	...	...	...	.
Tennessee Avenue:									
Continental	American	2.00	3.00	4.00	5.00	3.00	5.00	5.00	8.00
Continental	European	1.00	1.50	2.00	2.50	2.00	3.00	3.00	4.00
Fredonia	American	2.00	2.50	4.00	5.00	3.00	3.50	5.00	6.00
Fredonia	European	1.00	1.50	2.00	3.00	2.00	2.50	3.00	4.00
Howard House	American	1.56	2.00	3.00	4.00	...	...	...	...
Louvan	American	1.50	...	3.00	...	...	...	...	...

TABLE OF DAILY RATES AND ACCOMMODATIONS OFFERED BY ATLANTIC CITY HOTELS—(Continued)

		For 1 Person.							
	Plan.	Single Room.	Double Room.	Double Room.	Extra Large Room.	Single Room.	Double Room.	Double Room.	Extra Large Room.
Beaumont	American	1.50	3.00	3.00	4.00	...	...	...	...
Wilson	American	2.00	3.00	3.00	...	...	...	...	...
St. James Place:									
Sea Crest	American	2.00	3.00	4.00		3.00	4.00	5.00	...
Sea Crest	European	1.00	2.00	3.00	...	2.00	3.00	4.00	...
De La Mar	American	1.50	2.00	3.00	4.00	..	2.50	5.00	...
Ralston	American	1.75	2.25	3.50	5.00	..	...	...	...
New York Avenue:									
Morris	American	2.00	2.50	4.00	5.00	..	3.00	5.00	5.00
Morris	European	1.00	1.50	2.00	2.50		1.75	2.50	2.50
Bingham	American	1.50	2.00	1.00	5.00	..	...	...	...
Bingham	European	1.00	...						
Roanoke	American	2.00	2.50	3.50	4.50	.	...	...	...
Roanoke	European	1.00	1.50	2.00	2.50	..	...	...	...
Hygeia	American	1.50	2.00	3.00	4.00	..	...	...	...
Hygeia	European	1.00	1.50	1.50	2.50	...	...	...	...
Netherland	American	2.50	3.00	4.00	...	...	4.00	7.00	...
Kentucky Avenue:									
Bretton Hall	American	2.00	2.50	3.00	4.00	...	...	...	...
Bretton Hall	European	1.00	1.50	1.50	2.50	...	...	...	...
Acme	American	2.50	3.00	4.00	5.00	...	...	...	...
Westminster	American	2.00	...	3.00	4.00	...	...	...	...
Westminster	European	1.00	1.50	2.00	2.00	...	...	...	...
Stickney	American	2.00	2.50	4.00	5.00	3.00	4.00	6.00	...
Stickney	European	1,25	2.00	3.00	3.00	...	...	...	...
Michigan Avenue:									
Pennhurst	American	2.50	3.00	5.00	6.00	4.00	5.00	7.00	8.00
Edison	American	2.00	2.50	4.00	4.00	3.00	3.00	5.00	5.00
Edison	European	1.50	1.50	3.00	3.00	2.00	2.50	4.00	1.00
Missouri Avenue:									
Speidel	American	2.00	2.00	4.00	4.00	...	...	...	...
Pacific Avenue:									
Hall's (No. 1311)	American	2.00	2.50	4.00	5.00	...	...	...	...
Hall's (No. 1311)	European	1.00	2.00	2.00	3.00	...	...	...	...
Wittig's (No. 1421)	European	1.00	...	1.50	...	...	...	...	...
McClelland's (No. 1722)	American	175	3.00	4.00	4.50	...	...	...	...
McClelland's (No. 1722)	European	1.00	200.	2.50	3.00	...	...	...	..
Lexington	American	2.00	3.00	4.00	5.00	...	...	...	..
Lexington	European	1.50	2.00	2.00	2.50	...	...	...	..



KEY TO ATLANTIC CITY HOTEL MAP.

ON THE BOARD WALK:
1. Royal Palace
2. Rudolf
3. St. Charles
4. Seaside House
5. Haddon Hall
6. Chalfonte
7. Poinsettia
8. Young's
9. Windsor
10. Traymore
11. Brighton
12. Marlborough-Blenheim
13. Dennis
14. Shelburne
*15. Chelsea. (Hotel is one-half mile down board walk from termination of map.)

RHODE ISLAND AVENUE:
16. Westmont

MASSACHUSETTS AVENUE:
17. Lelande
18. Phillips House
19. New Avalon

CONNECTICUT AVENUE:
20. Troxell Hall

NEW JERSEY AVENUE:
21. Pierrepont

ST. CHARLES PLACE:
22. Raleigh

DELAWARE AVENUE:
23. Leith Villa

STATES AVENUE:
24. Hanlon

MARYLAND AVENUE:
25. Imperial
26. Allenhurst

VIRGINIA AVENUE:
27. Islesworth
28. Ponce de Leon
29. Avon Inn
30. Berkshire Inn.
31. Victoria
32. Colonnade
33. Jackson
34. Bothwell
35. Wiltshire
36. Morton
37. Belmont
38. Shoreham
39. Clarendon

PENNSYLVANIA AVENUE:
40. Craig Hall
41. New Chatham
42. St. Clare
43. Hampton Terrace

NORTH CAROLINA AVENUE:
44. Pembroke

SOUTH CAROLINA AVENUE:
45. Roxborough
46. Lloyd
47. Iroquois
48. Radnor

OCEAN AVENUE:
49. Bon Air
50. Renovo

TENNESSEE AVENUE:
51. Continental
52. Fredonia
53. Howard House
54. Louvan
55. Beaumont

ST. JAMES PLACE:
56. De La Mar
57. Ralston

NEW YORK AVENUE:
58. Morris
59. Bingham
60. Roanoke
61. Hygeia

KENTUCKY AVENUE:
62. Bretton Hall
63. Acme
64. Westminster
65. Stickney

MICHIGAN AVENUE:
66. Pennhurst
67. Edison

MISSOURI AVENUE:
68. Speidel

PACIFIC AVENUE:
69. Hall's (No. 1311)
70. Wittig's (No. 1421)
71. McClelland's (No. 1722)
72. Lexington

THE MEETING PLACES

The following is a list of the various meeting-places arranged by the Local Committee of Arrangements at Atlantic City for the various meetings:

Opening Session—(Tuesday at 10:30 a. m.), Auditorium, Young's New Pier.
House of Delegates—Traymore Solarium.
Board of Trustees—Marlborough-Blenheim (Committee Room).
Judicial Council—Marlborough-Blenheim.
Practice of Medicine—Marine Hall, Steel Pier.
Surgery and Anatomy—Ocean Hall, Steel Pier.
Obstetrics and Diseases of Women—Casino Hall, Steel Pier.
Diseases of Children—First Presbyterian Church, Pacific and Pennsylvania Avenues.
Nervous and Mental Diseases—Brighton Casino.
Pharmacology and Therapeutics—Jewish Synagogue, Pacific and Pennsylvania Avenues.
Hygiene and Sanitary Science—Baptist Church, Pacific Avenue, near Pennsylvania Avenue.
Pathology and Physiology—Central M. E. Church, 1213 Pacific Avenue.
Ophthalmology—Parochial Hall No. 1, Top Floor, Tennessee and Pacific Avenues.
Laryngology and Otology—Parochial Hall No. 2, Second Floor, Tennessee and Pacific Avenues.
Cutaneous Medicine and Surgery—Olivet Church, Tennessee and Pacific Avenues.
Stomatology—Olivet Church Sunday School Room, Tennessee and Pacific Avenues.
Registration and Bureau of Information—Young's Old Pier.
Postoffice, Telegraph and Telephone—Young's Old Pier.
Commercial and Scientific Exhibits—Young's Old Pier.
President's Reception—Wednesday night, Steel Pier.
Ladies' Afternoon Tea—Marlborough-Blenheim.

THE SCIENTIFIC EXHIBIT

Prospect of an Excellent Display—Announcement of Prizes to Be Awarded

The prospects for the Scientific Exhibit at the Atlantic City Session are most flattering. Generous contributions are already assured from Philadelphia, New York, Boston and other cities. To prospective exhibitors it may be said that as a rule serial exhibits, in illumination of some phase of pathology or experimental investigation, prove most instructive. On the other hand, however, very rare specimens of whatever sort are acceptable.

To stimulate wholesome competition the plan of a year ago will be followed of granting awards of honor to a few exhibitors presenting unusually meritorius work.

Diplomas of Honor.—To a very limited number of institutions or individuals presenting exhibits of superior merit, the committee on awards will grant illuminated diplomas bearing engravings of Harvey, Pasteur, Koch and Davis, formally signed by officials of the Association.

Gold Medals.—For the best exhibit of research work, and for the best tuberculosis exhibit.

The latter, however, must comply with the following requirements: (a) The exhibit must be comprehensive and complete in elucidating the whole tuberculosis problem, in a manner plain and convincing to the lay mind: covering the causation, nature, prevention and cure of the disease. (b) The exhibit must excel in stability, compactness and adaptability for installation in railway stations, postoffice buildings and public libraries. The usual tuberculosis exhibits are cumbersome and expensive to maintain. Necessarily they have only been presented in large cities, and then at long intervals and for brief periods. It is hoped to develop a model exhibit, which will occupy small space and can be maintained constantly at small expense by public health authorities in the public buildings of smaller cities.

Frank B. Wynn, Director, Indianapolis.

ENTERTAINMENTS

The Usual Program of Entertainments Arranged for the Coming Session

The usual cordial hospitality of Atlantic City will be extended to the visiting physicians and the ladies who accompany them. The President's reception, the principal and most formal social function of the meeting, will be held Wednesday night on the Steel Pier. This is an opportunity for meeting the President, as well as the other officials of the Association, and, with its accompaniment of music and dancing, provides a most delightful relaxation from the study of medical subjects in the various section meetings during the day.

The Ladies' Afternoon Tea will be given this year at the Marlborough-Blenheim Hotel. Other events have been arranged for the entertainment of the ladies, in accordance with the custom of providing special attractions for the wives, daughters and other ladies who accompany members of the Association.

A complete and detailed list of entertainments provided is not yet ready for publication, but there will be no lack of entertainment of this sort at the coming session.

A number of the sections, as usual, will hold banquets on Tuesday evening. An announcement of these will be made later. Some sections will hold formal dinners and others will have informal smokers, in some cases different sections meeting together. The Section on Nervous and Mental Diseases will hold its dinner Tuesday evening at 7:30 at the Marlborough-Blenheim Hotel.

THE ORATIONS

New Arrangements for Presentation of the Annual Orations Before the Sections

By a change in the arrangements effective with the last session, the Oration on Medicine, the Oration on Surgery, and the Oration on State Medicine will not be delivered in the evenings, but will be delivered before the sections. These will be scheduled in the official program, so that all may make arrangements to hear these formal addresses.

The Oration on Medicine will be delivered by Dr. James B. McElroy, Memphis. The Oration on State Medicine will be delivered by Dr. John S. Fulton, Baltimore. The Oration on Surgery will be delivered by Dr. Harvey Cushing, Baltimore.

Excursions

Attendance at the annual session is always made an opportunity to combine pleasure and instruction. Many members have arranged side trips of various sorts, but no special endeavor has been made to record these. The Association has met three times before this in Atlantic City and members are somewhat familiar with the opportunities for side trips and excursions. The railroads are ready, as usual, to aid in the planning of these side trips.

Bureau of Information

A Bureau of Information will be maintained adjoining the Registration Bureau, on Young's Old Pier, where information with regard to hotels, transportation, registration, meeting places, exhibits, entertainments, etc., may be obtained. In connection with this bureau branch telegraph and telephone offices will be maintained.

Postoffice and Telegraph

Mail matter and telegrams may be addressed in care of the American Medical Association, Young's Old Pier, Atlantic City. They will be sent direct to the postoffice, which adjoins the Registration Bureau. Telegrams and special delivery letters will be forwarded from there to the hotels or other stopping places of those whose addresses are recorded at the Registration Department or the Bureau of Information. It is preferable, however, to arrange hotel accommodations in advance so that one's friends and business acquaintances may use the hotel address.

ATLANTIC CITY

The Next Meeting Place of the American Medical Association

JAMES NORTH, M.D., D.D.S.
ATLANTIC CITY

There is no city in the United States which possesses, for the medical practitioner, the varied charms of this "Queen City by the Sea," America's greatest pleasure and health resort, Atlantic City. Not that it is a great center of learning, with famous universities, colleges and hospitals; not that, from it radiates the teachings of world-famous masters of the healing art; nor that its soil holds the honored dust of the great disciples of Æsculapius. No, none of these, but a subtler, more indefinable charm that wooes the mind from the cares of life, and the exactions of the profession; a charm of unalloyed rest that engenders a strength and determination to return to one's duties and to live up to one's possibilities.

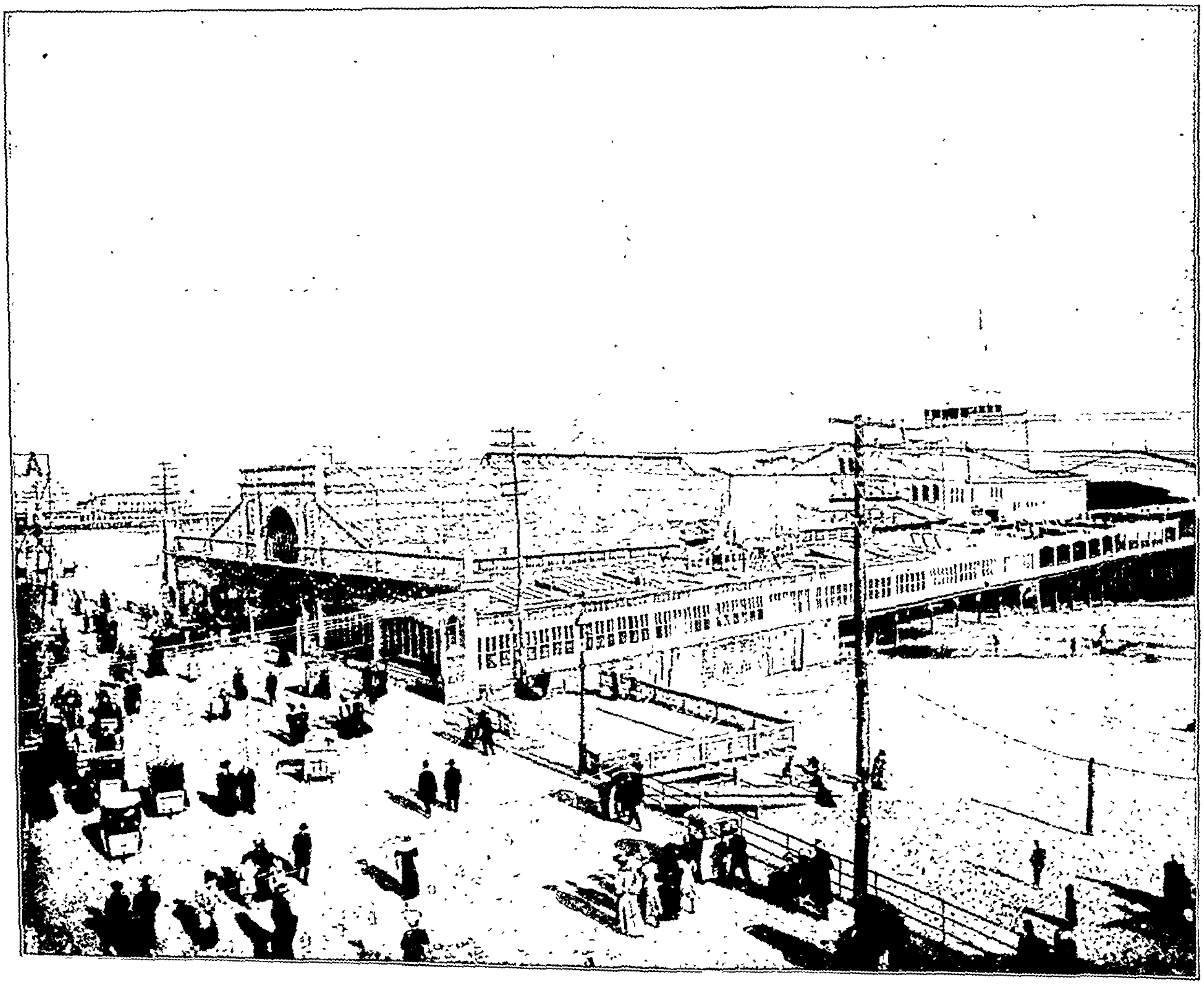


Fig. 2.—Young's Old Pier, containing Registration Bureau, Information Bureau, Scientific Exhibit, Commercial Exhibit, Telegraph and Telephone Booths, Branch Postoffice, etc. These illustrations are reproduced from copyrighted photographs kindly furnished by Harper B. Smith Co., photographers, Atlantic City.

It is not alone the supposedly hopeless patients, who, mid its environments gain a new lease of life, that sound the praises of its invigorating, health-restoring climate; but the great multitude of overworked, nervous, broken-down human beings, who come as skeptics and go away believers, to whom a day, a week, a month gives new energy, new joy. To these add the millions who come for pleasure alone, and who take away with them, memories never to be forgotten, of joyous days and still more joyous nights.

It is no idle boast to say that, "Atlantic City is the greatest health and pleasure resort in the world," and in many respects the most unique and interesting. In this result, the medical profession has been the chief factor, not only in its conception but in its growth and popularity. From the inspiration of Dr. Jonathan Pitney of Absecon, who, back in the forties, saw with prophetic vision its possibilities and preached the evangel of this island of health, to the enthusiastic gatherings of the American Medical Association within its gates, is but a few score years; but that period contains the epitome of the city's fame, and of the splendid fidelity of the profession, that believed in it first, last and all the time.

In its many-sided variety, Atlantic City surpasses, in the charms of novelty and ever-shifting life, the most celebrated watering-places of either this country or of the old world, and above all, is the most cosmopolitan, the most democratic. Most generously favored by nature in its geographical situation, outside the earthquake, hurricane and tidal-wave zones; surrounded by the waters of the Atlantic Ocean, blessed with a climate of rare equability, 61 per cent. of sunshine and an annual average temperature of 52 degrees; bountifully supplied with pure spring water, which is pumped through eighty-two miles of mains into every building within its limits; protected as regards its sewerage of over sixty miles of pipes, with the most approved appliances and methods of modern science; well lighted; well paved; it enjoys not only superb physical advantages, but the no less important ones of up-to-date hygiene.

Absecon Beach, on which the city is built, is in very truth a gift of the sea, whose every incoming wage for ages past has deposited its tribute of glistening sand until an island ten miles long, from one-half to three-quarters of a mile wide, covering 5,575 acres, rises safe and secure above the tumbling combs of the ever-rolling surf. Extending nearly due east and west, *it faces the south* and catches the prevailing southwest breezes, fresh and cool from the ocean, through the *long summer days and nights*, while the inhabitants of the inland towns suffer from excessive heat. In winter, it lies exposed to the tempering rays of the sun and the warm currents of the Gulf Stream which lave its shores, *making the* temperature a number of degrees warmer than on the mainland seven miles away. Seaward, the waves stretch for three thousand miles or more to the shores of the eastern continents, while landward it is separated from the main shore of New Jersey by a wide thoroughfare, or channel, through which vessels pass and the salt tides ebb and flow ceaselessly.

Still beyond this is a great expanse, seven miles wide, of salt bays and meadow land, green in spring and red as a sunset sky in autumn, widening out to meet the uplands, whose vast forests of fragrant pine mingle their balsamic odors with the ocean's briny breath. The broad and shelving beach, "the world's playground," affords not only a safe, but the finest surf-bathing-ground in the world, on which it is no uncommon sight to see from forty to *fifty thousand* happy mortals disporting and revelling amid the tossing, cooling waves, or sitting and strolling on the clean white sand. Modern bathing establishments, where costumes and all conveniences are provided, render it possible for a *hundred* and fifty thousand persons to bathe during a day without crowding or discomfort. For the comfort and protection of this multitude, the city maintains a beach patrol of fifty-five trained men equipped with boats and life-saving apparatus, as well as a beach hospital under the direction of an able surgeon, though there is little demand for such services.

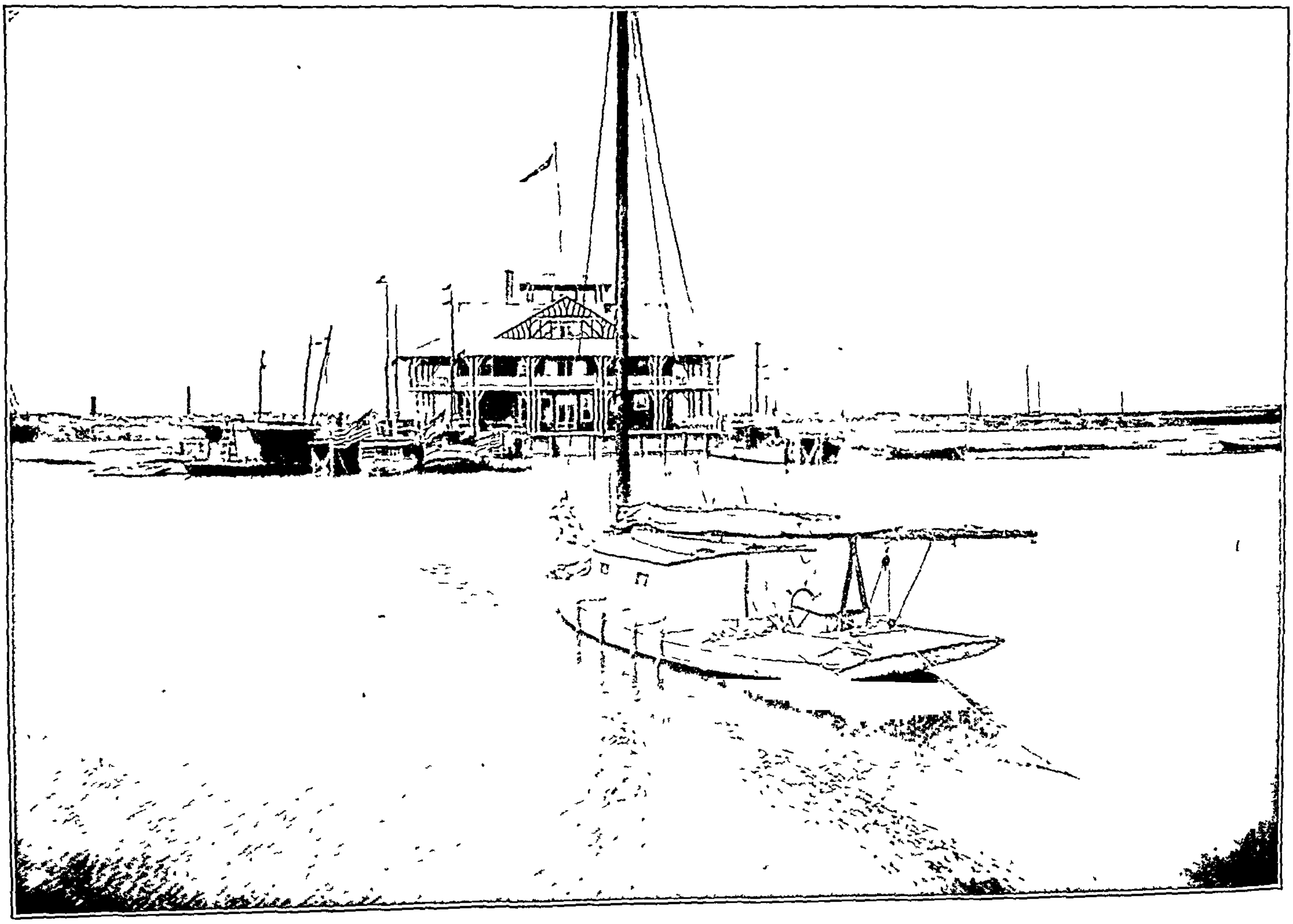


Fig 3—Atlantic Yacht Club.

The open sea and many bays and inlets render sailing, fishing, crabbing and gunning delightful features of Atlantic City life. At the inlet a fleet of swift and safe pleasure yachts and steam launches—a hundred and fifty or more—are always in readiness to take visitors sailing on the smooth and quiet waters of the bays *or out beyond* the white capped breakers and beyond the sight of land. These boats are equipped with fishing-tackle and bait, and the skippers are familiar with the waters and the best fishing grounds along the coast. The ocean promenade, or Boardwalk, is peculiarly and distinctly an *Atlantic City* invention, or better, *inspiration*, and is known the wide world round. Here the idea originated, and from a few loose boards laid along the beach to keep the visitors from sinking in the soft sand, it has grown into its present proportions, seven *miles long* and at no point less than twenty feet wide.

It presents in all its length an unobstructed view of the strand and sea. This monument of municipal achievement cost some three hundred thousand dollars and is securely built on steel piling, elevated ten or fifteen feet above the strand and *is brilliantly lighted every night* in the year by myriads of incandescent electric lights, festooned above. Arrangements are about completed to extend the walk to Longport, the extreme end of the island, which will give it a total length of ten miles, the most complete, most beautiful and grandest walk on earth. The walk is lined on the inside with hundreds of stores, shops and bazaars *stacked with* the richest wares from all quarters of the globe; Oriental porcelains and rugs; Italian mosaics and statuary; *French* jewelry and gowns; English, German, Russian and Scandinavian art works; Mexican and Indian *handiwork*—in fact, no nation of the world but contributes to the innumerable beautiful and useful articles here displayed to the best advantage.

On this promenade in the eventide of spring and summer march and countermarch the *most* cosmopolitan, the most fashionable throng to be seen anywhere. Here, beneath the glow of the festooned *lights*, mid the enchanting strains of music wafted from the crowded and brilliantly lighted piers, garbed in the colors of *the* rainbow, joyous and happy with laughter and jest, this human garland of health and beauty stretches itself along the walk to admire and be admired.

On Easter Sunday the display of rich and fashionable gowns and beautiful millinery is unsurpassed, even in the Bois de Boulogne of Paris, or Rotten Row in London.

An advantage possessed by *Atlantic City* over her sister cities, is her permanence. The resident population is now over 45,000; it is doubling every ten years, and developing wide awake business men who, by their energy and foresight, are striving to make this, not only the most popular, but the most beautiful of seaside cities, a consummation soon to be realized, if the plans adopted are worked out. The ever increasing number of wealthy and intellectual residents is forming a social community which adds its charm to those who enjoy an atmosphere of education and refinement, while the transient sojourners, in some years numbering ten millions or more from all lands of the earth, gives it a truly cosmopolitan coloring that might be envied by older cities of Continental Europe. With a municipal government, interested in the comfort and welfare of all who visit the city, there is an efficient police force for the preservation of order, a competent lifeguard of selected men to look after the bathers; an excellent paid fire department, well-manned and well-equipped with the most improved fire fighting apparatus; and a well-organized Publicity Bureau to answer every question and to tell a thousand interesting things, which this short article can not undertake.

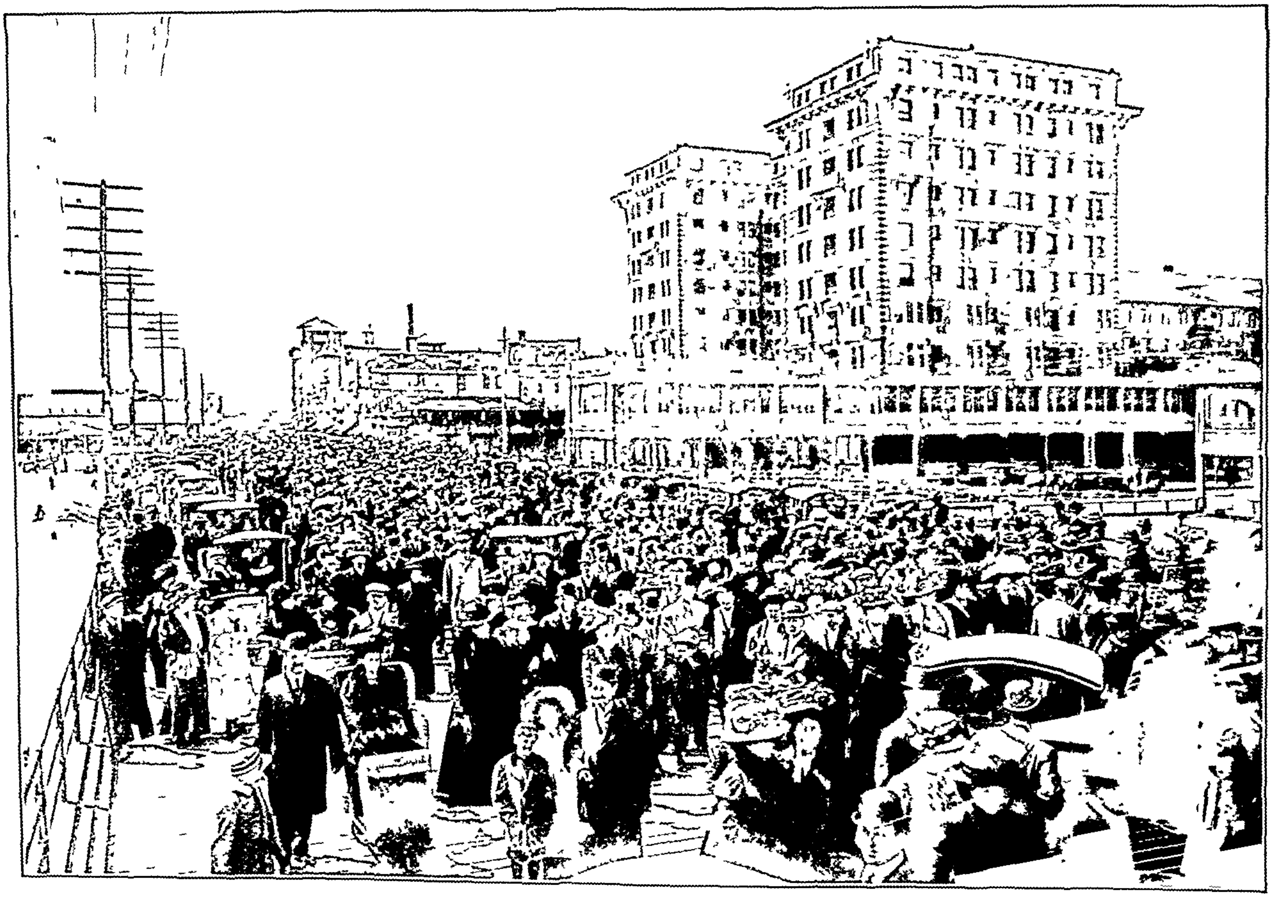


Fig. 4.—Easter Parade on the Board Walk, April 11, 1909, showing also Hotel Chalfonte, headquarters for the Section on Surgery and Anatomy

Electric lights at night on all the streets make this one of the best lighted cities in the country and as safe for visitors as by daylight. Electric cars run the whole length of the island and from the beach to the mainland, giving opportunity for cheap trolley rides of many miles, while busses and other vehicles are to be found at all points.

There are over sixty miles of broad avenues, paved with asphalt, bitulithic, brick and wooden blocks, delightful for carriage and automobile rides, which are kept clean and in good repair, and in the summer are well sprinkled daily. The streets are regularly laid out at right angles, and lined with buildings great and small that present the greatest and most pleasing variety of architecture imaginable. Over ten thousand buildings grace the streets, one thousand of which are hotels ranging from the great beach-front houses which cost millions to erect, and which are capable of accommodating a thousand or more guests at one time, in all the comfort and luxury obtainable in the great metropolis of the world, to the modest boarding houses, homelike and inexpensive. There are five national banks and three trust companies, the deposits in which amount to $10,000,000 at the height of the season; thirty-three churches of all demominations; twelve public school buildings; a public library, five theaters, five ocean piers, extending into the sea from one thousand to two thousand eight hundred and four feet, two city hospitals, a lighthouse one hundred and sixty seven feet high, the light of which is visible nineteen miles at sea, a postoffice where the sale of stamps alone amounts to over two hundred thousand dollars annually, seven newspapers, three daily and four weekly, one of the finest golf courses in the country, eight holes 6,000 yards, a wireless station, and everything else that adds to the pleasure and comfort of man.

Railroad facilities constitute a most important factor in the development of every city and in that respect Atlantic City is especially favored. With two third-rail electric roads, two double-tracked steam lines to Philadelphia, and two to New York, the city is brought into immediate rail connection with the 35,000,000 people who reside within a radius of five hundred miles from the city hall, about 10,000,000 of whom visit Atlantic City annually. The nine fastest trains in the world run to and from Atlantic City and cover the distance of sixty miles to Philadelphia in less than an hour and to New York City in three hours; in all respects, luxury, comfort, speed and safety—the most complete system to be found anywhere.

The amusements are many and varied. Horse shows at which the finest stables of the country are represented; dog shows, with canines from the best kennels; baseball and golf contests, yacht races, carnivals, etc. Excellent dramatic and musical entertainments claim the attention of visitors; five theaters cater to the public and the best companies—dramatic and operatic—appear on their boards. In fact, it is quite the vogue to make Atlantic City the place for the premier performances of new plays, many having phenomenal success in the great cities were successfully launched here. Balls on the piers and at the hotels, as well as orchestra and band concerts, are of nightly occurrence; in fact, there is not a minute of the day or night that may not be filled with mirth and enjoyment. The larger hotels maintain excellent orchestras throughout the season, and at the piers and casino they perform the year round.

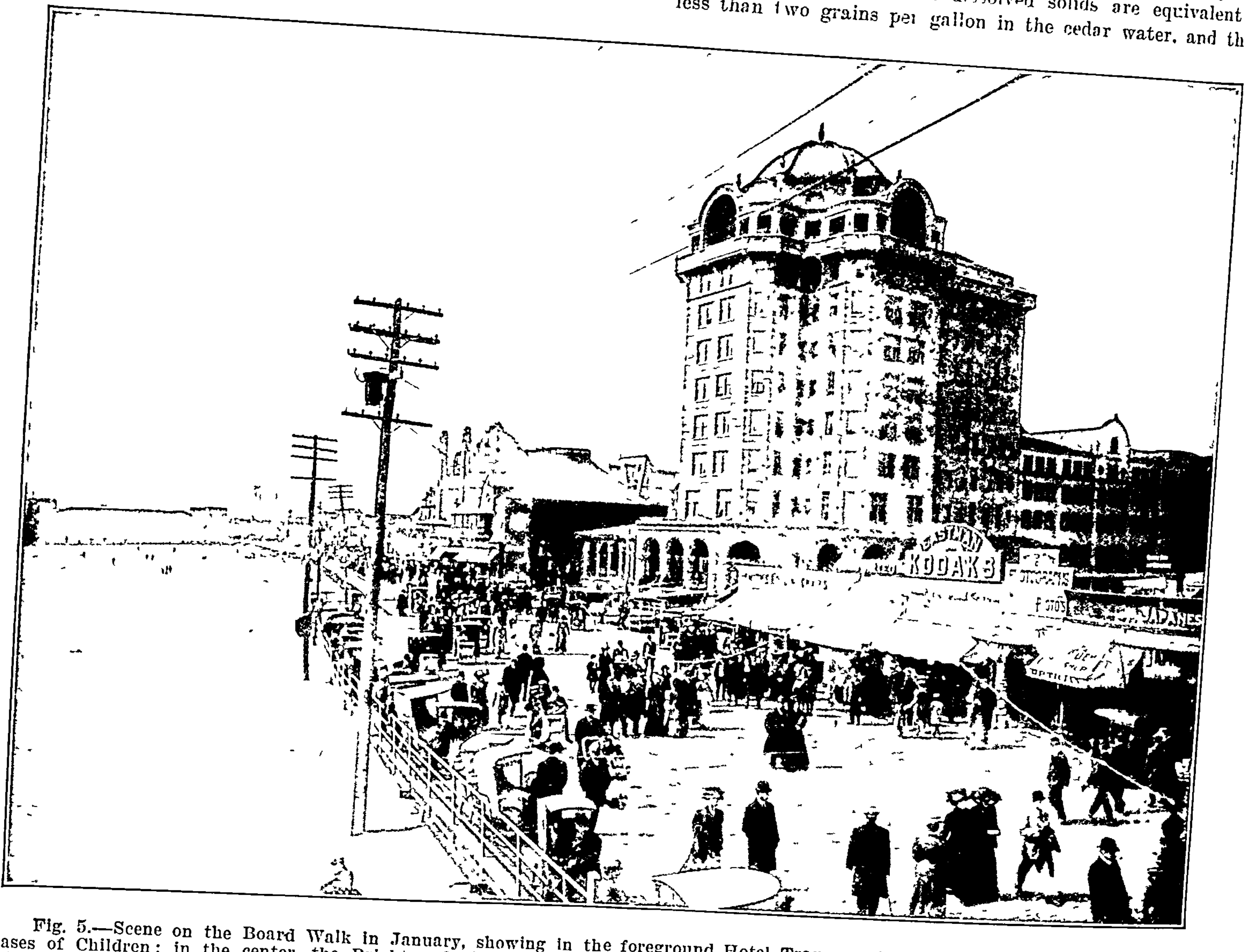


Fig. 5.—Scene on the Board Walk in January, showing in the foreground Hotel Traymore, headquarters for the Section on Diseases of Children; in the center, the Brighton Casino, meeting place for the Section on Nervous and Mental Diseases and beyond, with the dome, the Marlborough-Blenheim, the general headquarters.

The rolling chair has become a permanent feature of the walk; not only invalids patronize them, but the well and strong indulge in the exhilarating pastime, and the floral parades, in which the chairs are decked with the most beautiful of flowers and gorgeous streamers, are sights well worth seeing. It takes the memories of the aged back to the days of Bath, when the beaux and belles of England rode in their sedan chairs; while the younger generations are reminded of the carnivals of the lands of flowers.

Atlantic City is the health resort par excellence of the east. The general direction of all the islands of the coast is from southwest to northwest, save Absecon Beach, which runs more to the west, facing nearly to the south. If a line be drawn from Irvington-on-the-Hudson to Cape May, giving the general trend of the coast, it will be seen that Atlantic City lies at least twenty miles east, the farthest point out, in a southeasterly direction and nearest the Gulf Stream, which approaches at that point within thirty miles. The effect of this great ocean current on the climate of Atlantic City is most apparent, making it similar and in many respects like that of Ireland and parts of England, save the moisture, which is here at the minimum, the average rainfall being about 51 inches and the average temperature 51.6 degrees.

The soil is sandy and porous, readily and quickly absorbing what little fog and dew falls, as well as the slight snowfalls which rarely last long enough for a good day's sleighing, while mud is something almost unknown, as the heaviest rains disappear like magic. The city water is pumped from artesian wells; some of the larger hotels supply their own water from a stratum 900 feet deep, and from the mainland out of the primitive cedar forests. It is clear and remarkably free from impurities, the total dissolved solids are equivalent to less than two grains per gallon in the cedar water, and three grains in the artesian well water. The cedar forest water has long been noted for its medicinal, health-giving properties, and long before the discovery by the Spaniards, the aborigines drank from the springs and bathed in the streams of these self same waters. Somewhere among them was the fabled fountain of life, sought so ardently by Ponce de Leon, the drinking of whose waters endowed the drinker with perpetual youth. While great stress should not be placed on this legend, the longevity of the natives of the cedar forests and pine belt of southern New Jersey is surprisingly great.

The reputation Atlantic City is gaining as a convention city is becoming world wide. Its central location and proximity to the great cities of the east and middle west, with its excellent train connections and all the advantages heretofore mentioned, bids fair to place it first in this respect. It now averages over one hundred important state and national conventions annually

The prevailing winds are from the southwest and in their passage over the wide expanse of ocean are purified and laden with ozone, which strengthens the vital processes and stimulates the nervous system This is the paradise for patients suffering from functional disturbances, nervous prostration, overwork of either mind or body, depression, indigestion, insomnia or torpid states of the system convalescents from whatever disease—in fact, invalids needing change of climate and the peculiar benefits of this, the most healthful spot on earth The personal testimony of thousands of physicians all over the world, who have visited and sent their patients here, and still better, the corroboration of the tens of thousands of patients themselves, living examples of the assertions herein set forth, will be most conclusive to the worried, overtaxed physician who is baffled in his treatment of such patients, and the sufferers themselves, whose pain and discomfort is so miraculously relieved by the balmy air and the ideal environments of this Queen City by the Sea.

SECTION ON PRACTICE OF MEDICINE

CHAIRMAN, JOSEPH L MILLER, CHICAGO; SECRETARY, WILDER TILESTON, BOSTON

Medical Supervision of Boarding Schools and of Athletic Contests Among School Boys (10 minutes). Nathaniel Bowditch Potter, New York

An Experimental Study of Gastric Tetany (15 minutes). W G. MacCallum, Baltimore.

Chronic Infectious Endocarditis (15 minutes). Frank Billings, Chicago

Diverticulum of the Pylorus (5 minutes). Allen A. Jones, Buffalo

Cardiac and Vascular Complications in Pneumonia with Special Reference to Treatment (15 minutes). Frederick Forchheimer, Cincinnati

Clinical Significance of Indicanuria (10 minutes). Judson Daland, Philadelphia

The Diagnostic Value and Limitations of Analysis of the Gastric Contents (15 minutes). Charles G Stockton, Buffalo

X Ray Evidence in Gastric Cancer (15 minutes). A W Crane, Kalamazoo, Mich.

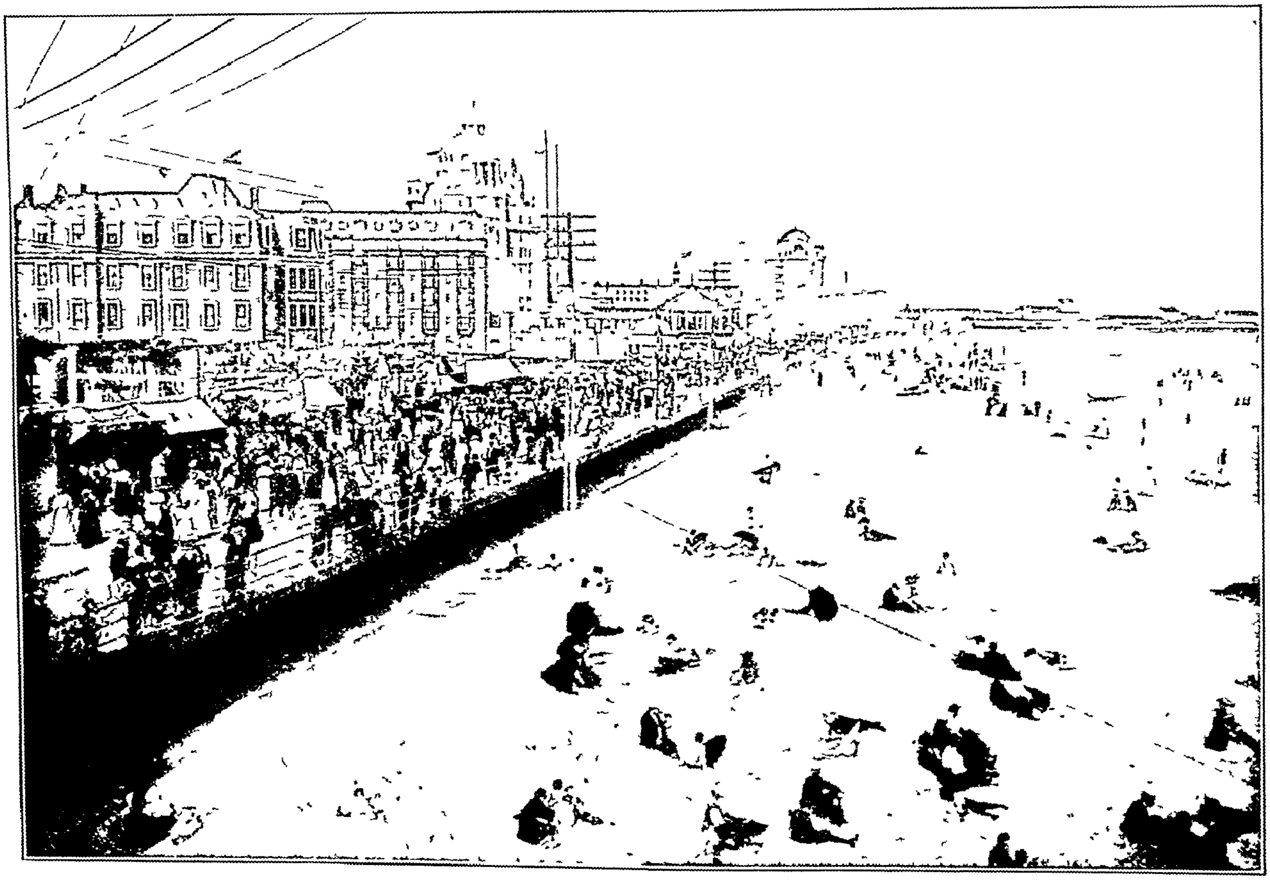


Fig 6—View of the Board Walk and the strand, showing hotels from left to right · Shelburne, Dennis, Marlborough Blenheim and Traymore

SECTION PROGRAMS

The following is a partial list of titles of papers to be read before the various sections The order here is not necessarily the order which will be followed in the Official Program This Official Program will be similar to those issued in previous years, and will contain the final program of each section, with abstracts of the papers, lists of committees programs of the General Meetings and of the meetings of the House of Delegates lists of entertainments map of Atlantic City, etc To prevent misunderstandings and to protect the interests of advertisers, etc it is here announced that this Official Program will contain no advertisements It is copyrighted by the American Medical Association and will not be distributed before the session A copy will be given to each member on registration.

The Diagnostic Importance of Examination of the Feces (15 minutes). Charles P. Emerson, Clifton Springs, N. Y.

The Diagnostic Value of Stained Specimens of Stools in Cancer of the Stomach (5 minutes). Philip King Brown, San Francisco

Resorption of Proteids, Carbohydrates and Fats in the Chronic Alcoholic (15 minutes) Alexander Lambert, New York.

The Determination of Trypsin in the Stomach Contents After the Oil Test Meal (10 minutes). Clifford B Farr Philadelphia.

Oration in Medicine Tropical Diseases, America's Opportunities and Obligations James B McElroy, Memphis.

Transmission of Malarial Fever in the Canal Zone by Anopheles Mosquitoes (15 minutes). Samuel T. Darling, Ancon, Canal Zone, Panama

The Present Status of the Serum Treatment of Epidemic Cerebrospinal Meningitis (15 minutes). Simon Flexner, New York.

The Retention of Alkali by the Kidney, with Special Reference to Acidosis (15 minutes). Herman M. Adler and Gerald Blake, Boston.

Amebic Dysentery (15 minutes). Sidney K. Simon, New Orleans.

The Association of Aortic Insufficiency with Syphilitic Aortitis (10 minutes). Warfield T. Longcope, Philadelphia.

Clinical Value of Recent Studies in Experimental Nephritis (15 minutes). Henry A. Christian, Boston.

Hypertension in Nephritis; Its Cause and Treatment (15 minutes). John H. Musser, Philadelphia.

The Value and Limitations of Salt-Free Diet and Restriction of Fluid in Nephritis (15 minutes). Victor C. Vaughan, Ann Arbor, Mich.

The Management of Uremia (15 minutes). Edward F. Wells, Chicago.

Report of Committee on Revision of the Pharmacopeia (20 minutes). Thomas McCrae, Baltimore.

Rocky-Mountain Spotted Fever, with Lantern Slide Demonstration (20 minutes). H. T. Ricketts, Chicago.

The Talma-Morison Operation in the Treatment of Cirrhosis of the Liver (15 minutes). George Dock, New Orleans.

Algid Forms of Malaria, with Report of Cases (15 minutes). Thomas D. Coleman, Augusta, Ga.

A Study of the Anatomy and Clinical Importance of the Sacro-iliac Joint. Fred H. Albee, New York City.

The Endometrium and Some of Its Variations. William S. Gardner and Emil Novak, Baltimore.

The Treatment of Certain Vesical Affections by Means of Hydraulic Distension. Edgar Garceau, Boston.

Chronic Appendicitis with Chronic Perienteritis and Intestinal Obstruction Due to Infolding of Mucosa. Report of a Case. Presentation of Specimens. Francis D. Donoghue, Boston.

The Pathology of Eclampsia and Toxemia of Pregnancy. J. E. Welch, New York City.

Study of Eclampsia, With Results in Two Hundred and Fifty Cases, From the Wards of the Lying-In Hospital of New York City. Ross McPherson, New York City.

The Present Status of Irrigation and Drainage in Obstetric and Gynecologic Operations. Horace G. Wetherill, Denver.

Some Factors Which Contribute to Low Mortality in Abdominal Surgery. F. F. Simpson, Pittsburg.

Remote Results of Conservative Surgery of the Ovaries. John Osborn Polak, Brooklyn.

The Etiology and Prophylaxis of Postoperative Thrombo-Phlebitis. Daniel H. Craig, Boston.

Curettage for Uterine Hemorrhage. Howard A. Kelly, Baltimore.

Fig. 7.—A view of the beach in summer, thousands enjoying themselves playing in the water on the strand.

The Value of Alimentary Levulosuria in the Diagnosis of Hepatic Cirrhosis (10 minutes). John H. Musser and Edward H. Goodman, Philadelphia.

The Nature and Treatment of Anemia (15 minutes). S. P. Beebe and W. Gilman Thompson, New York.

The Value of Baths and Exercises in the Treatment of Heart Disease (15 minutes). Robert H. Babcock, Chicago.

Value of Physical Training (15 minutes). H. B. Favill, Chicago.

The Value of Bier's Hyperemia in the Treatment of Joint Affections (15 minutes). Willy Meyer, New York.

Massage in General Medicine (15 minutes). John K. Mitchell, Philadelphia.

The Work of a Cooperative Hydrotherapeutic Establishment (15 minutes). Joseph H. Pratt, Boston.

SECTION ON OBSTETRICS AND DISEASES OF WOMEN

CHAIRMAN, WALTER P. MANTON, DETROIT; SECRETARY, C. JEFF MILLER, NEW ORLEANS.

Chairman's Address: Mental Alienation in Women and Abdomino Pelvic Disease. Walter P. Manton, Detroit.

The Operation of Choice for Retrodisplacements of the Uterus. A. E. Benjamin, Minneapolis.

Some Minor Gynecologic Matters Which Are Often Overlooked. I. S. Stone, Washington, D. C.

A Method of Complete Nephroureterectomy in Women. J. Wesley Bovée, Washington, D. C.

Perineorrhaphy by the Flap-Splitting Method. Charles P. Noble, Philadelphia.

Fibromyoma of the Uterus. Ellice McDonald, New York.

Enucleation of Uterine Myomata, Why and When Performed. E. E. Montgomery, Philadelphia.

Ovariotomy and Myomectomy Early in Pregnancy with Full-Term Delivery. H. Grad, New York City.

Cancer of the Uterus Too Far Advanced for Radical Operation. H. J Boldt, New York City.

Palliative Treatment of Cancer of the Uterus. Walter B. Chase, Brooklyn.

An Ovarian Abscess Containing a Lumbricoid Worm Within the Cavity. Henry D. Fry, Washington, D. C.

Tetanus Developing Twelve Days After Shortening of the Round Ligaments. Recovery. Reuben Peterson, Ann Arbor.

Pelvic Inflammation Apparently Due to Infection from the Rectum. Paul Michinard, New Orleans.

Final Word on the Stem Pessary for Dysmenorrhea, Amenorrhea Sterility, Etc. J H. Carstens, Detroit.
Cesarean Section. Wm H. Wathen, Louisville
Conditions Simulating Tubal Pregnancy. H S Crossen, St Louis
Extrauterine Pregnancy with Especial Reference to the Proper Operative Period After Tubal Rupture, with Report of Cases L G. Bowers, Dayton.
Abdominal Surgery in America. A Historical Review, Largely Personal. H. O Marcy, Boston
Cystocele George R. White, Savannah.
An Imbricating and Coaptation Suture as a Safeguard Against Hernia. D Tod Gilliam, Columbus, Ohio

SECTION ON SURGERY AND ANATOMY

CHAIRMAN, JOHN C MUNRO, BOSTON; SECRETARY, JOHN F. BINNIE, KANSAS CITY, MO

Chairman's Address: John C. Munro, Boston.
Localized Subphrenic Tuberculosis C. A. Powers, Denver, Colo
Treatment of Tuberculous Pleuritis and Empyema. Emil G. Beck Chicago.
Report of Twenty Cases of Perforated Gastric and Duodenal Ulcer. J. H Gibbon and F. T Stewart, Philadelphia
Intussusception. W. J. Frick, Kansas City, Mo
Infections of the Joints Experimental and Clinical Study. J. B. Murphy, Chicago
Arthritis Deformans E H Nichols, Boston
Conservative Treatment of Sarcoma of the Long Bones. W. B Coley, New York
The Transperitoneal Operation for the Removal of Bladder Neoplasms E S Judd, Rochester, Minn
A Radical Operation for Certain Forms of Hydrocele. Willard Bartlett, St. Louis, Mo
Dilatation Treatment of Urethral Stricture. V. C. Pederson, New York.
Some Therapeutic Possibilities of Cholecystostomy. L L McArthur, Chicago
Surgery of the Large Intestine W J Mayo, Rochester, Minn
The Treatment of the Appendix Stump. Van Buren Knott, Sioux City, Iowa.
Consideration of the Mortality of Appendicitis. LeGrand Guerry, Columbia, S. C
Causes of Death in Acute Intestinal Obstruction and Kindred Conditions (10 minutes). J W. D Maury, New York.

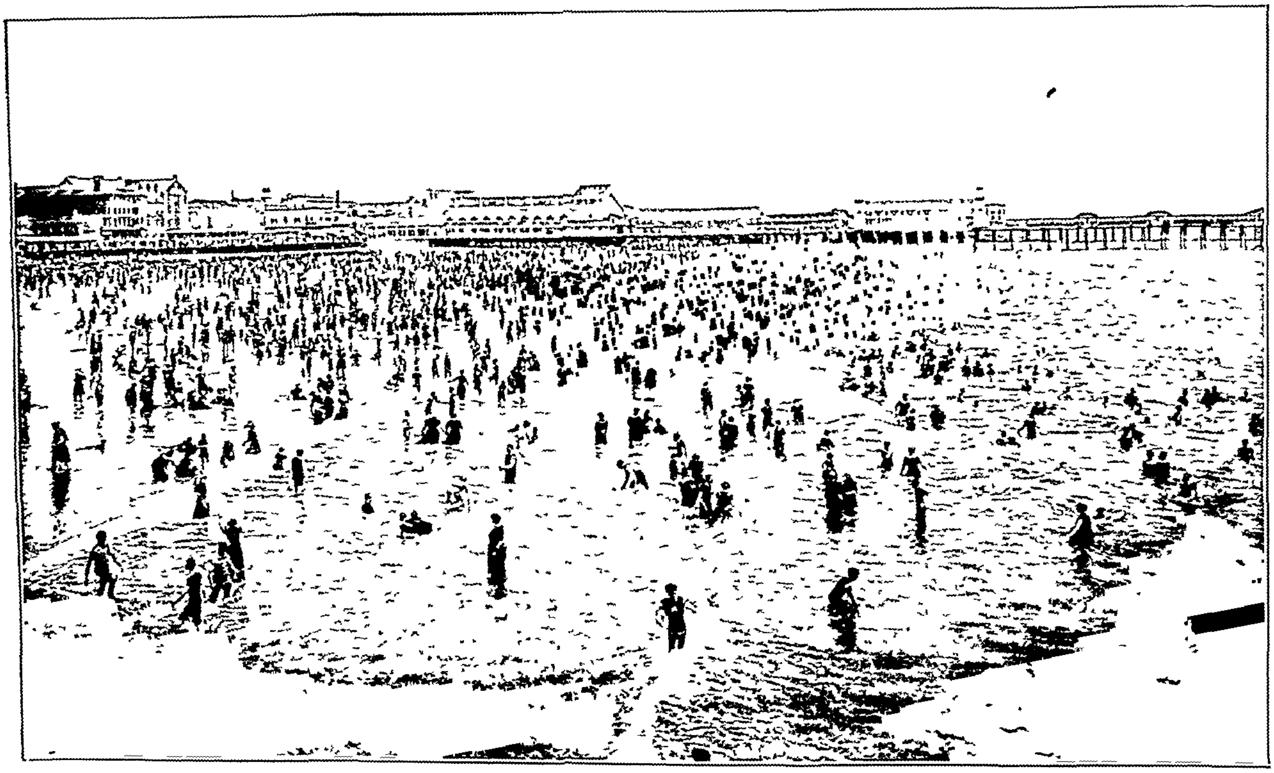


Fig 8—Another view of the beach, this one taken in August.

Address on Thoracic Surgery. Prof. P. L. Friedrich, Marburg, Germany.
Pneumectomy with the Aid of Differential Pressure; An Experimental Study. The New Type of Apparatus Used Willy Meyer, New York.
Anastomotic Button in Intrathoracic Surgery (10 minutes). J W D Maury, New York.
Electrical Anesthesia. Raymond Russ, San Francisco.
Report of Anesthesia Committee (10 minutes).
The Operative Treatment of Fractures. W. Arbuthnot Lane, Esq, London, Eng
Operative Treatment of Fractures William Darrach, New York.
A Plea for the More Careful Diagnosis of Fractures and Their Treatment. E D Martin, New Orleans
Metallic Clips for the Closure of Wounds of the Skin and Hollow Viscera E Wyllys Andrews, Chicago
The Pseudoperitoneum A. E Hertzler, Kansas City, Mo
The Early Symptoms of Upper Abdominal Disease J. B Deaver, Philadelphia
Pancreatitis A J Ochsner, Chicago
Hypertrophic Stenosis of the Pylorus in Infants Report of Cases Occurring on the Pacific Coast. Stanley Stillman, San Francisco.
Neurectomy for the Relief of Pain in Intra-abdominal Adhesions and in Certain Forms of Dysmenorrhea. M. L. Harris, Chicago.
The Radical Treatment of Epithelioma of the Lip. J. C. Stewart, Minneapolis.
Report of a Case of Sarcoma of the Tonsil. John E. Summers, Jr, Omaha, Neb.
Method of Procedure in Mammary Neoplasms of Doubtful Nature Wm. L Rodman, Philadelphia.
Radical Operation in Mammary Cancer. J. N. Jackson, Kansas City, Mo
Primary Sarcoma of the Spleen Camillus Bush, San Francisco.

SECTION ON OPHTHALMOLOGY

CHAIRMAN, ALVIN A HUBBELL, BUFFALO; SECRETARY, ALBERT E BULSON, JR, FT WAYNE, IND.

Chairman's Address. Alvin A. Hubbell, Buffalo, N. Y.
The Visual Fields in Hysteria—A Clinical Study of Fifty Cases Walter R Parker, Detroit, Mich.
Regeneration of the Cornea. M. Wiener, St. Louis, Mo.

Scissors-Magnet Extraction of Iron from Eyeball. Edward Jackson, Denver, Colo.

Prophylaxis of Interstitial Keratitis. H. Gifford, Omaha, Neb.

The Accommodation and Donder's Curve, and the Need of Revising Our Ideas Regarding Them—An Experimental Study. Alexander Duane, New York, N. Y.

Exhibition of New Instruments and Appliances.

Isolated and Complete Paralysis of the Third Nerve of Traumatic Origin. Lee M. Francis, Buffalo, N. Y.

Unreliability of Astigmatic Fan or Clock Dial Test. David W. Stevenson, Richmond, Ind.

Simple Fibroma of the Orbit. William E. Gamble, Chicago, Ill.

Dropsy of the Optic Nerve Sheath. J. A. Tenney, Boston.

Reflex Aural Neuroses Caused by Eye-Strain—with Report of Cases. Samuel Theobald, Baltimore, Md.

Amethyst Tinted Lenses—A Preliminary Communication. L. Webster Fox, Philadelphia, Pa.

Some Minor Points in the Surgery of Cataract. H. F. Hansell, Philadelphia, Pa.

The Expression of Cataract in Its Capsule—with Report of Forty Operations. H. V. Würdemann, Seattle, Wash.

Expression of Cataracts in the Capsule by the Smith Method. D. W. Greene, Dayton, Ohio.

Galvano-Cautery Puncture in Ectropion and Entropion. S. Lewis Ziegler, Philadelphia.

Rodent Ulcer of the Cornea. R. L. Randolph, Baltimore, Md.

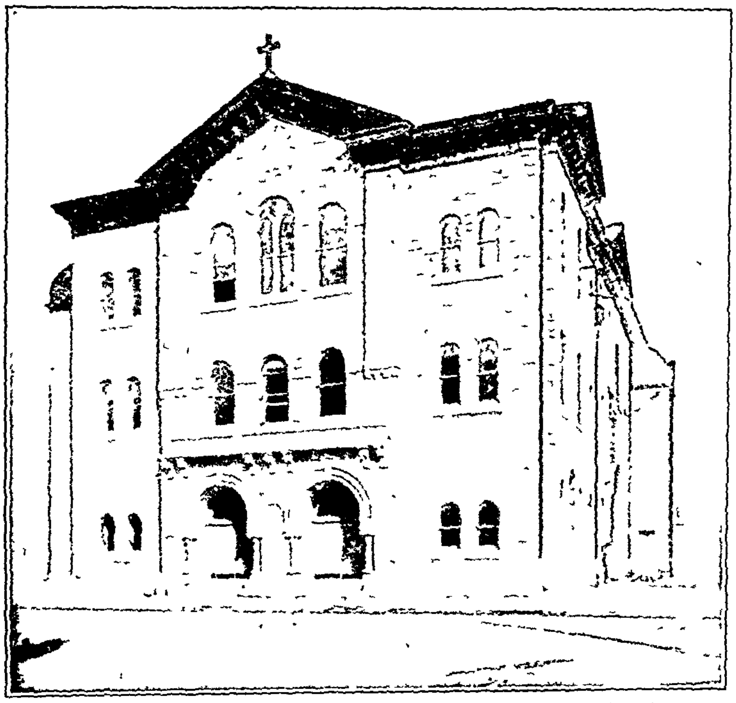


Fig. 9.—Parochial School, meeting place for the Sections on Ophthalmology and on Laryngology and Otology.

Epibulbar Leucosarcoma. Exenteration of the Orbit. No Recurrence at the Original Site. Death in Three Months from Metastases. Casey A. Wood, Chicago, Ill.

Operative Treatment of Glaucoma by Cyclodialysis. Arnold Knapp, New York, N. Y.

The Management of Acute Hemorrhagic Glaucoma in the Presence of Advanced Arteriosclerosis. Charles S. Bull, New York, N. Y.

Primary Hemorrhagic Glaucoma with Probable Sympathetic Inflammation. Mortimer Frank, Chicago, Ill.

Nodular Opacity of Cornea—Etiology. John Green, Jr., St. Louis, Mo.

Practical Importance of Hyperphoria in Prescribing Lenses for Use at Particular Distances and in Different Directions. Mark D. Stevenson, Akron, Ohio.

Tenotomy or Advancement? Lucien Howe, Buffalo, N. Y.

Report of Committee on Collective Investigation Concerning the Ocular Muscles. Lucien Howe, Buffalo, N. Y.

Preliminary Report of Committee on Collective Investigation Concerning Tuberculosis of the Eye. William H. Wilder, Chicago.

Operative Treatment of Papillo-Edema Dependent on Increased Intracranial Tension. G. E. de Schweinitz, Philadelphia.

Surgical Aspects of Cerebral Decompression. Charles H. Frazier, Philadelphia.

A Clinical Investigation on the Relationship of Tuberculosis to Certain Diseases of the Eye. G. S. Derby and T. H. Ayer, Boston.

Neuropathic Keratitis and Some Allied Conditions, with Special Reference to Treatment. F. H. Verhoeff, Boston.

Lachrymal Gland Tumors. L. D. Brose, Evansville, Ind.

SECTION ON LARYNGOLOGY AND OTOLOGY

Chairman, W. Sohier Bryant, New York; Secretary, George E. Shambaugh, Chicago.

President's Address. W. Sohier Bryant, New York.

Treatment of Palatopharyngeal Adhesions, New Operation for Their Successful Relief. J. C. Roe, Rochester, N. Y.

A New and Satisfactory Apparatus for Etherization in Operations About the Face and Upper Air Passages. A. H. Miller, Providence.

Benign Tumors of the Turbinated Bodies Clinically and Pathologically Considered. Richard H. Johnston, Baltimore.

Anatomic and Physiologic Considerations Relating to the Faucial Tonsils. C. M. Robertson, Chicago.

Conditions in the Faucial Tonsils Which Call for Operative Interference. Emil Mayer, New York.

A Discussion of the Methods of Operating on the Faucial Tonsils. Norval H. Pierce, Chicago.

General Anesthesia for Tonsil and Adenoid Operations. Francis R. Packard, Philadelphia.

Postoperative Tonsillar Bleeding. Its Surgical Control, with Mention of Cases. Lee Cohen, Baltimore.

Fracture of the Base of the Skull. Charles R. C. Borden, Boston.

Presence of Vincent's Spirilla and Bacilli Fusiformis in Pseudomembranous Anginas. Wm. R. Murray, Minneapolis.

Occurrence of Acute Inflammation of the Nasal Accessory Sinuses. Symptoms and Treatment. David B. Kyle, Philadelphia.

Suppurative Accessory Sinus Diseases in Which an Intranasal Operation Is Indicated. H. W. Loeb, St. Louis.

Diseased Conditions Involving the Nasal Accessory Sinuses in Which an External Operation Is Indicated. C. G. Coakley, New York.

Two Cases of Infectious Labyrinthitis. George F. Cott, Buffalo.

Symptoms of the Intracranial Complications Occurring in Chronic Suppurative Otitis Media. A. B Duel, New York.

Indications for Tympanomastoid Exenteration in Cases of Chronic Suppurative Otitis Media Where There Is An Absence of Evidence of an Intracranial Complication. B. A. Randall, Philadelphia.

Conditions Which Constitute Contraindications to the Typanomastoid Exenteration in Cases of Chronic Suppurative Otitis Media. Eugene A. Crockett, Boston.

Exhibition of Preparations, Instruments, etc.

X-Ray Examination of the Mastoid. Samuel Iglauer, Cincinnati.

The Physiology of the Eustachian Tube. E. P. Fowler, New York.

The Deaf Child and the Physician. John D. Wright, New York.

Correction of Nasal Deformities. Wm. W. Carter, New York.

SECTION ON NERVOUS AND MENTAL DISEASES

Chairman, M. Allen Starr, New York; Secretary, Wm. Alexander Jones, Minneapolis.

President's Address. M. Allen Starr, New York.

Tumors of the Hypophysis. D'Orsay Hecht, Chicago.

Successful Removal of a Cerebellar Tumor. T. Diller and O C. Gaub, Pittsburg.

Observations on Brain Tumors. Wm. G. Spiller, Philadelphia.

Tumors of the Pons: Four Cases with Necropsy. T. H. Weisenburg, Philadelphia.

Diagnosis of Spinal Cord Tumors, with Report of a Case Operated. J. Grinker, Chicago.

Symposium: The Serum Diagnosis of Syphilis and Its Relation to Diseases of the Nervous System.

(a) On the Value of Serodiagnostic Methods in the Diagnosis of Diseases of the Central Nervous System. B. Sachs, New York.

(b) On the Practical Value of Lymphocytosis and the Globulin Reaction and the Complement-Binding Reaction for Neurology. Max Nonne, Hamburg, Germany.

(c) Serodiagnosis of Syphilis. Hideyo Noguchi, New York.
(d) The Wassermann Reaction. E. Castelli, New York.
(e) A Side Light on the Syphilitic Etiology of Tabes. James J. Putnam, Boston.
Report of Two Cases of Probable Spinal Cord Lesion Following Pasteur Treatment. Wm. A. Jones, Minneapolis.
Facial Neuralgia Treated by Deep Injections of Alcohol; 75 Cases Reported. Hugh T. Patrick, Chicago.
Visual Disturbances in Multiple Sclerosis. Theo. Klingman, Ann Arbor, Mich.
Optic Atrophy in Tabes. A Diagnostic Symptom in the Differential Diagnosis from General Paresis. E. D. Fisher, New York.
Muscular Effort in the Non-paralyzed Extremity on Attempting to Move the Paralyzed Extremity in Hemiplegia. Charles W. Burr, Philadelphia.
The Paralytic Complications of Herpes Zoster. J. Ramsay Hunt, New York.
Treatment of Occupation Neurosis and Neuritis in the Arms. J. Madison Taylor, Philadelphia.
The Effect of Intercurrent Disorders on Pre-existing Epilepsy. A. S. Hamilton, Minneapolis.
Hydrotherapy in the Treatment of Nervous and Mental Diseases. W. B. Spratling, Baltimore.
The Simulation of Insanity. Charles K. Mills, Philadelphia.
The Practical Value of the Association Experiment. Pearce Bailey, New York.
Some Modern Problems in the Care and Treatment of Mental Defectives. L. Pierce Clark, New York.
A Clinical Study of a Series of Cases of Insanity. H. A. Tomlinson, St. Peter.
A Study of the Traumatic Insanities. A. C. Brush, Brooklyn.
Traumatic Neuroses, with a Report of Cases. E. E. Gaver, Columbus.
Medical vs. Legal Responsibility. Alfred Gordon, Philadelphia.
The Responsibility of Physicians in Cases which Menace Public Safety. W. R. Dunton, Towson.
Some Points of Contact Between Neurology and Orthopedic Surgery. J. E. Goldthwaite, Boston.
Meningitis and Lesions of the Radicular Nerves in Tabes Dorsalis. John H. W. Rhein, Philadelphia.
Nervous Symptoms of Pellagra. E. D. Bondurant, Mobile.
Allochiria. Carl D. Camp, Ann Arbor.
The Syndrome of Thalamus Hemorrhage. Charles L. Dana, New York.

SECTION ON HYGIENE AND SANITARY SCIENCE

CHAIRMAN, J. H. WHITE, NEW ORLEANS, LA.; SECRETARY, S. T. ARMSTRONG, NEW YORK.

Chairman's Address: J. H. White, New Orleans.
The Importance of Consolidation of All the National Health Associations into the Section on Hygiene and Sanitary Science with the Purpose of Making It What It Should Be. J. N. McCormack, Bowling Green, Ky.
The Relation of the Medical Profession to Preventive Medicine. H. M. Bracken, St. Paul, Minn.
Popular Education as a Stimulus in Public Health Work. W. M. Brumby, Austin, Texas.
Preservatives in Food Materials: Their Detection and Effects. D. H. Bergey, Philadelphia.
The Limitations in Public Health Administration. Henry B. Hemenway, Evanston.
Vasectomy as the Means of Preventive Procreation in the Defectives. Harry C. Sharp, Indianapolis.
Public Health Problems. George A. Soper, New York.
Lake Michigan Water for Drinking Purposes. W. A. Evans, Chicago.
The French Tobacco Factory at Issy, near Paris: Hygienic Notes. Oscar Dowling, Cincinnati.
The Sanitary Regeneration of San Francisco. N. K. Foster, Sacramento, Cal.
Insect Carriers of Typhoid Fever. W. Forrest Dutton, Walker's Mills, Pa.
Typhoid Immunity and Antityphoid Inoculations. Willard J. Stone, Toledo, Ohio.
The Prevention of Malaria. Seale Harris, Mobile, Ala.
The Notification to the Local Health Authorities of Cases of Abortion and Miscarriage. Myer Solis Cohen, Philadelphia.
Necessity of More Extended Cooperation at Ports of Departure in Preventing or Diminishing the Transmission of Infectious Diseases from One Country to Another. A. H. Doty, Quarantine, L. I.
Reduction of Quarantine Restrictions to a Safe Minimum. J. Y. Porter, Key West, Fla.

SECTION ON STOMATOLOGY

CHAIRMAN, EDWARD C. BRIGGS, BOSTON; SECRETARY, EUGENE S. TALBOT, CHICAGO.

Chairman's Address. Edward C. Briggs, Boston.
Enamel and Its Vitality. R. R. Andrews, Cambridge, Mass.
A Study of Malnutrition in the School Child. E. Mather Sill, New York City.
Suppression of the People's Disease. S. B. Luckie, Chester, Pa.
The Rôle of the Teeth in Respiration. F. L. Stanton, New York City.
Oral Prophylaxis. Alphonse Irwin, Camden, N. J.
The Tonsils and the Teeth. G. Hudson-Makuen, Philadelphia.
Mouth Conditions in Their Relation to Systemic Infection. Frederick B. Moorehead, Chicago.
The Surgery of Cleft Palate. George V. I. Brown, Milwaukee, Wis.
General Therapeutics and Surgery in Dentistry. Arthur R. Dray, Philadelphia.
Conservative Surgery for Treatment of Tumors of the Mandible. Thomas L. Gilmer, Chicago.
A Method of Treating Mandibular Fractures. Robert T. Oliver, West Point, N. Y.
The Treatment of Extreme Degrees of Malocclusion of the Teeth by Operations on the Ramus of the Inferior Maxillary Bone. W. Wayne Babcock, Philadelphia.
Osteomyelitis of the Jaw. H. H. Germain, Boston.
Report of Two Record Tertiary Cases. G. Lennox Curtis, New York City.
Trifacial Neuralgia. Fred Hussey, Providence, R. I.
Anesthesia. L. G. Noel, Nashville, Tenn.
A Summary of Thirteen Thousand Nitrous Oxid and Oxygen Anesthesias. Charles K. Teter, Cleveland, Ohio.
Pseudopulpitis and Periostitis Due to Rheumatoid Arthritis. William Mills, Baltimore.
Dental Roentgenology. G. E. Pfahler, Philadelphia.
A Number of Cases in which the Nasal Sinuses Have Been Enlarged by Orthodontia. E. A. Bogue, New York.
Report of the Committee on Revision of Pharmacopeia. Hermann Prinz, Chairman, St. Louis; G. B. Squires, Somerville, Mass.
Report of the Committee on Vital Statistics. George V. I. Brown, Chairman, Milwaukee; Vida A. Latham, Chicago; Frederick B. Moorehead, Chicago.

SECTION ON DISEASES OF CHILDREN

CHAIRMAN, THOMAS S. SOUTHWORTH, NEW YORK; SECRETARY, W. W. BUTTERWORTH, NEW ORLEANS.

Chairman's Address: The Field for Prophylaxis Among Children. Thomas S. Southworth, New York.
Transitory Urinary Findings, Associated with Some Diseases of Childhood. Walter Lester Carr, New York.
Food Intoxications in Childhood. John Ruhräh, Baltimore.
Infantile Eczema; Some Recent Views Concerning Its Pathology and Etiology. Isaac A. Abt, Chicago.
Cardiovascular Disease in Children with Presentation of a Sphygmoscope, Designed for Children. R. G. Freeman, New York.
Hair Ball or Hair Cast of the Stomach, and Its Occurrence in Children. W. W. Butterworth, New Orleans.
The Treatment of Summer Diarrhea, Due to Intestinal Fermentation, with Living Lactic Acid Bacilli. Charles Hunter Dunn, Boston.
Vaccine and Serum Therapy in Diseases of Children. Charles Gilmore Kerley, New York.
The Treatment of Epidemic Meningitis with the Flexner Serum. Frank Spooner Churchill, Chicago.
The Treatment of Anemia in Infancy with Citrate of Iron Subcutaneously. John Lovett Morse, Boston.
Sea-Water Treatment; Given by Subcutaneous Injection, with the Results Obtained in Children. Theodore Le Boutillier, Philadelphia.
Middle-Milk Mixtures. Alfred F. Hess, New York.
The Relation Between the Science and Art of Infant Feeding. Henry Dwight Chapin, New York.
Infant Mortality: The Factors which Compose It, and How These May Be Influenced. L. Emmett Holt, New York.
Heubner's System of Infant Feeding, Based on Calories and Low Fat. E. Lackner, Chicago.
A Convenient Method for Determining Caloric Values of Formulas Based on Percentage Feeding of Infants. Henry I. Bowditch, Boston.

The Transmission of Bovine Tuberculosis to Children. Henry L. K. Shaw, Albany.

The Antibodies in Tuberculosis. Their Relation to Tuberculin Inoculation and Vaccination. William J. Butler, Chicago.

The Child's Breakfast. W. C. Hollopeter, Philadelphia.

Conditions of the Public School Child. J. W. Van Derslice, Chicago.

The Hygiene of Lactation. J. Ross Snyder, Birmingham.

Help the Mother Nurse Her Child. Maurice Ostheimer, Philadelphia.

Opacities of the Cornea: Their Frequency in Children from Preventable Causes, and Their Effect on Vision. Colman W. Cutler, New York.

Exhibition of a Patient with Achondroplasia, with Notes on the Disease. M. H. Fussell, R. S. McCombs, G. L. de Schweinitz, Philadelphia.

Suppurative Conditions in Joint Regions in Infants. Linnaeus E. La Fétra, New York.

"Post Hoc Ergo Propter Hoc," Cases in Children Illustrating Conditions Mistakenly Attributed to Injuries. J. P. Crozer Griffith, Philadelphia.

Persistent Thoracic Sinus Following Empyema. Charles N. Dowd, New York.

History of Two Cases of Congenital Pyloric Spasm, with Remarks on the Treatment and Etiology of the Condition. D. J. M. Miller, Atlantic City.

Syphilitic Pseudoparalysis. L. T. Royster, Norfolk, Va.

SECTION ON PHARMACOLOGY AND THERAPEUTICS

Chairman, Reid Hunt, Washington, D. C.; Secretary, C. S. N. Hallberg, Chicago.

Chairman's Address: The Advancement of Pharmacology and Therapeutics by Experiments on Animals. Reid Hunt, Washington, D. C.

Addresses of Delegates of the American Pharmaceutical Association. Geo. M. Beringer, Ph.M., Camden, N. J.

The Mercurial Salts in the Treatment of Syphilis. Lewis W. Bremerman, Chicago.

The Therapeutic Management of Arteriosclerosis Based on the Present View of its Pathology. Alexander G. Brown, Jr., Richmond, Va.

The Analgesic Effect of Local Applications of Solutions of Magnesium Sulphate and of Other Salts. Solomon Solis-Cohen, *Philadelphia.*

The Determination of the Quality of Ergot. Horatio C. Wood, Jr., Philadelphia.

Some Observations on the Pharmacologic Action of Ergot. E. M. Houghton and H. S. Yntema, Detroit.

Clinical Results with *Craetagus oxycanthus*, T. F. Reilly, New York City.

The Use of Ferments in Medicine. Charles G. Stockton, Buffalo.

General Principles of Dietetics with Special Reference to the Use of Proprietary Foods. David Edsall, Philadelphia.

Proprietary and Predigested Foods from the Standpoint of the Pediatrist. John Howland, New York City.

The Advantages of Adhering to the Use of Potassium Iodid. George Dock, New Orleans.

Clinical Use of Phenolphthalein. *John J. Gilbride,* Philadelphia.

Pharmacologic and Clinical Study of Some Phthaleins. L. G. Rowntree, *Baltimore.*

The Lowering of Blood Pressure by Nitrites. George B. Wallace and A. I. Ringer, *New York City.*

Symposium on the Present Status of Serum and Vaccine Therapy with Special Reference to the Products on *the* American Market.

(a) The Federal Control of Sera, Vaccines, etc. (b) Vaccine Virus. M. J. Rosenau, Washington, D. C.

Diphtheria Antitoxin. W. H. Park, New York City.

Tetanus Antitoxin. J. F. Anderson, Washington, D. C.

(a) General Principles of Bacterial Vaccine Therapy. (b) Specific Therapy with Infections with the Colon Bacillus —Vaccines and Sera. (c) Vaccine Therapy of Neoformans Infections. (d) Principles of Specific Therapy in Typhoid Fever. Mark W. Richardson, Boston.

Investigations of Sera and Vaccines for Streptococcus, Straphylococcus, and Pneumococcus Infections. . L. Hektoen, G. H. Weaver and R. Tunnicliff, Chicago.

(a) Antigonococcus Serum and Gonococcus Vaccine (Bacterin). (b) Uselessness *of Therapy by* Pyocyaneus Vaccine. B. A. Thomas, Philadelphia.

General Principles of Tuberculin Diagnosis and Treatment. E. R. Baldwin, Saranac Lake, N. Y.

The Treatment of Inoperable Sarcoma by Erysipelas and Prodigiosus Toxins. Leo Loeb, Philadelphia.

(a) Antidysenteric Serum. (b) Antimeningococcus Serum. Simon Flexner, New York City.

Results of Three Years' Experience in Bacterial Immunization. B. A. Thomas, Philadelphia.

On Antivenins. H. Noguchi, New York City.

Report of Committee on the United States Pharmacopeia.

Additions and Eliminations *from the* United States Pharmacopeia from the Viewpoint of Statistics. C. S. N. Hallberg, Chicago.

Do We Possess in the Drugs and Preparations that are Recognized by the United States *Pharmacopeia and the* National Formulary a Sufficient Armamentarium for the Medicinal Treatment of Disease? M. Clayton Thrush, Philadelphia.

A Classification of Proprietary Medicines. A. T. McCormack, Bowling Green, Ky.

Nature of Preparations Used in the Treatment of Drug Addictions. L. F. Kebler, *Washington,* D. C.

What Can Physicians Do to Improve the Pharmacopeia? *Henry Leffmann, Philadelphia.*

Nomenclature of the United States Pharmacopeia and National Formulary Mixtures. L. F. Kebler, Washington, D. C.

Some of the Preparations of the United States Pharmacopeia from the Practitioner's Standpoint. M. H. Fussell, Philadelphia.

The National Formulary: Its Genesis, Character and Exigent Utility. H. P. Hynson, Baltimore.

SECTION ON PATHOLOGY AND PHYSIOLOGY

Chairman, M. J. Rosenau, *Washington;* Secretary, H. Gideon Wells, Chicago.

Chairman's Address: The Rôle *of Animal Experimentation* in *the Diagnosis* of Contagious Diseases. M. J. Rosenau, Washington, D. C.

Further *Evidence on the Endemic Occurrence* of Cancer in Animals. Harvey R. Gaylord, Buffalo, N. Y.

The Relation Between Anaphylaxis and Immunity. Paul A. Lewis, New York.

The Hemolytic Action of Crotalus Venom on Human Erythrocytes. Joseph McFarland and Paul G. Weston, Philadelphia.

The Relation of Ether to Immunity. Evarts A. Graham, Chicago.

Notes on the Histogenesis of the Thymus Cells, *and on the* Normal and Pathological Histology of the Thymus. Alwin M. Pappenheimer, New York.

Cardiac Thrombosis: The Clinical and Pathological Findings in Four Cases. Frank Smithies, Ann Arbor, Mich.

Clinical and Experimental Studies in Surgical Anemia and Shock. G. W. Crile, D. H. Dolley and D. A. Prendergast, Cleveland.

The Relation of Venous Pressure to the Efficiency of the Heart. Yandell Henderson, New Haven, Conn.

The Measurement of *Human Blood Pressure. Louis* Faugeres *Bishop, New York.*

The Rate of Blood Flow in the Arm. A. W. Hewlett and J. G. *van Zwaluwenburg,* Ann Arbor, Mich.

Some Relations of Iodin in the Thyroid. S. P. Beebe, New York.

The Metabolic Influence of Copious Water Drinking with Meals. C. C. Fowler and P. B. Hawk, Urbana.

Experimental Analysis of the Altered Function of the Kidney in Diabetes Mellitus. *Harlan Shoemaker, Philadelphia.*

The Section will attend the Symposium of the Section on Pharmacology and Therapeutics, on the Present Status of Serum and Vaccine Therapy with Special Reference to the Products on the American Market.

The Physiological Utilization of Some Complex Carbohydrates. Lafayette B. Mendel and *Mary D. Swartz,* New Haven, Conn.

The Experimental Production of *Maternal Placenta.* Leo Loeb, Philadelphia.

The Relation of *Tonus to* Peristalsis. W. B. Cannon, Boston, Mass.

Acquired Intestinal Diverticula. Guthrie McConnell, St. Louis.

The Transformation from Tumor into Cystic Tissue in the Central Nervous System. D. J. McCarthy, Philadelphia.

Cysts of the Female Breast, and their Relation to Carcinoma. Joseph C. Bloodgood, Baltimore.

Pathology of Gastric Ulcer. Wm. Carpenter MacCarty, Rochester, Minn.

What a Pathologist Should Know About Obstetrics and Gynecology. Ellice McDonald, New York.

The Inadequacy of the Present Methods Employed in the Bacteriological Study of the Intestinal Tract. Katharine R. Collins, Atlanta, Ga

The Significance of Ehrlich's Aldehyde Reaction in the Urine. Oscar Berghausen, Cincinnati.

The Diagnostic Value of Hemolysis in Cancer and Tuberculosis. George W. Crile, Cleveland.

Hemolysis in the Diagnosis of Malignant Neoplasms. O. P. Johnstone and C. H. Canning, Pittsburg.

A Rational and Practical Complement Fixation Test and the Butyric Acid Test for Syphilis Diagnosis. Hideyo Noguchi, New York

Some Studies of the Precipitin Tests for Syphilis. Henry S. Wieder and Edward M. l'Engle, Philadelphia.

Serum Diagnosis of Syphilis. Wm. Litterer, Nashville, Tenn.

SECTION ON CUTANEOUS MEDICINE AND SURGERY

No program for this Section had been received at the time of going to press.

THE COMMERCIAL EXHIBIT

The Exposition of Instruments, Apparatus, Remedial Agents, Literature and Physicians' Supplies at Atlantic City

The Commercial Exhibit will, as usual, be supervised directly by the officers of the American Medical Association, whose aim and desire has been to sacrifice mere size to excellence. The exposition will be held on Young's Pier, in what is known as the Music Hall and Skating Rink. The entrance to the exhibit hall is directly adjacent to the famous Boardwalk. The scientific exhibit, the registration department, the post-office and the information bureau, will all be under the same roof as the commercial exhibit There is every reason to believe that the display this year will excel in quality and interest that of any previous exposition.

The number of physicians who fail to derive any satisfaction from visiting the commercial exhibits at the meeting of the American Medical Association, is, we venture to say, very small To the average man there is a great deal of pleasure to be had from looking over the choicest and latest products of the publishers' art; from handling and seeing finely finished surgical instruments; from examining high grade and elegant pharmaceuticals; and from testing the latest thing in automobiles Such exhibits have a distinct educational value

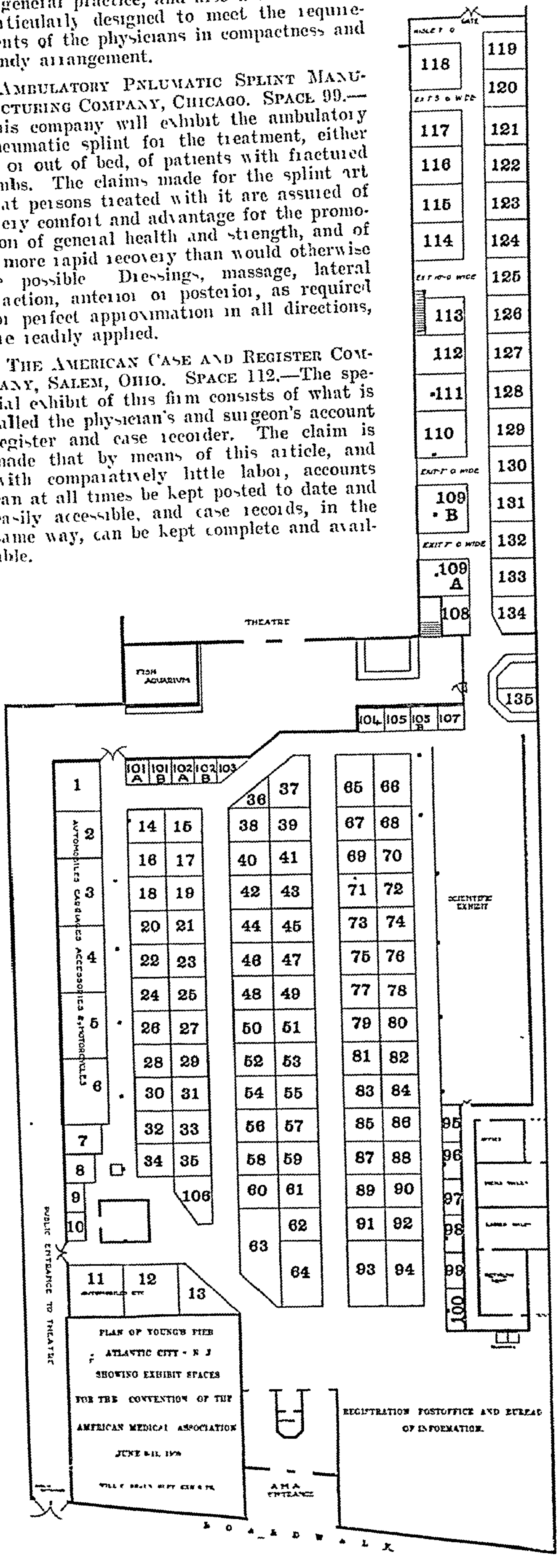
All correspondence with reference to reservations should be sent to Mr Will C Braun. superintendent of exhibits, 103 Dearborn Avenue, Chicago Dr. Edward Guion, 1408 Atlantic Avenue, Atlantic City, N J, will act as local chairman. Most of the firms that will be represented at this exposition are mentioned below

Dr H M Alexander & Company, Marietta, Pa. Space 105.—Four of the products prepared at its laboratories will be exhibited by this company. The Pasteur anti rabic vaccine will be shown in an emulsion preserved in glycerin and in a special container enclosed in a vacuum bottle rendering it possible to transport it through the mails. All of the various forms of tuberculin made from tubercle bacilli of both the bovine and the human types will be shown, as well as small-pox vaccine virus and concentrated and refined diphtheria antitoxin.

W. D. Allison Company, Indianapolis. Spaces 22 and 23.—Some new features will be displayed by this firm in addition to its well known practical equipment. These will include a new line of reception room furniture, a chair which is said to combine all the features required by specialists, and can be converted instantly into an operating table and used as well in general practice, and also a line of sanitary roll-top desks, particularly designed to meet the requirements of the physicians in compactness and handy arrangement.

Ambulatory Pneumatic Splint Manufacturing Company, Chicago. Space 99.—This company will exhibit the ambulatory pneumatic splint for the treatment, either in or out of bed, of patients with fractured limbs. The claims made for the splint are that persons treated with it are assured of every comfort and advantage for the promotion of general health and strength, and of a more rapid recovery than would otherwise be possible Dressings, massage, lateral traction, anterior or posterior, as required for perfect approximation in all directions, are readily applied.

The American Case and Register Company, Salem, Ohio. Space 112.—The special exhibit of this firm consists of what is called the physician's and surgeon's account register and case recorder. The claim is made that by means of this article, and with comparatively little labor, accounts can at all times be kept posted to date and easily accessible, and case records, in the same way, can be kept complete and available.



D. Appleton & Company, New York City. Space 33.—This long-established house will exhibit many new works, among which will be Dr. Henry Ling Taylor's "Orthopedic Surgery" (preventative orthopedics), Dr. George W. Crile's original work on "Hemorrhage and Transfusion," Dr. Alexander Bryan Johnson's "Surgical Diagnosis," "The American Treatise on Tuberculosis," edited by Dr. Arnold C. Klebs, and many others. The firm will also have a full line of its standard and forthcoming works on exhibit.

Arlington Chemical Company, Yonkers, N. Y. Spaces 30 and 32.—This firm will exhibit the preparations, liquid peptonoids and dry peptonoids soluble and hemaboloids, together with some interesting scientific data regarding food values and the methods of preparation of these goods. An attractive and artistic souvenir will be presented to all physicians who visit the exhibit.

Armour & Company, Chicago. Spaces 67 and 68.—The work now being carried on by physiologists, biochemists and pharmacologists shows the importance of the hormones in the animal organism, their relations and their functions. Recent discoveries indicate that probably the many lecithins and organ lipoids play some rôle in the immunizing processes, that the thyroid, suprarenal and pancreas hormones are interdependent and possibly control the fat, sugar and protein metabolism. Physicians doubtless will find the exhibit of this firm's organotherapeutic agents particularly interesting.

Atlas Motor Car Company, Springfield, Mass. Space 6.—This firm will exhibit a three-cylinder, five-passenger touring car and its physicians' special runabout. These cars are equipped with the Atlas two-cycle engine which it is claimed should appeal particularly to physicians who run their own cars, as the construction and operation of the engines is such as not to require an expert to operate and care for them. The physicians' runabout is said to combine with the advantages of the engine, extreme ease of riding, graceful lines and proportions and high grade construction.

Baker Electric Company, Hartford, Conn. Space 25.—The Baker static machine will be shown by this company, together with instruments for measuring amperage and voltage, also amperage of high-frequency and auto-condensation currents. The apparatus is constructed with a special view of standardizing electrotherapeutic measurements. There will also be shown the latest developments in apparatus for successful radiographic work.

Battle Creek Sanitarium, Battle Creek, Mich. Spaces 89, 90, 91 and 92.—This exhibit will consist of large photographs and other illustrative material showing the methods and appliances which constitute the Battle Creek Sanitarium system. The exhibit will be in charge of trained nurses from the institution, graduates of the Battle Creek Sanitarium and Hospital Training School for Nurses.

Bausch & Lomb Optical Company, Rochester, N. Y. Space 80.—The instruments making up this firm's exhibit will, it is claimed, represent the most advanced steps in microscope and microtome construction. The new series of achromatic objectives and research microscopes with large stages, handle arms, and sensitive, durable lever fine adjustments will be of particular interest. The new simplified Minot rotary microtome will be shown as will also recently improved centrifuges of various designs.

Bernstein Manufacturing Company, Philadelphia. Space 55.—Aseptic hospital furniture and physicians' office specialities will be exhibited by this firm. One piece of apparatus to which the manufacturers will direct special attention is an improved type of dressing sterilizer, which will doubtless prove of interest to those in charge of hospitals. Many other items of a similar character will help fill out the display.

Frank S. Betz Company, Hammond, Ind. Spaces 40, 41, 42 and 43.—This firm expects to have a man making operating knives at its exhibit—a novelty that will doubtless prove an attraction. A display of knives that range in size from two inches to two feet in length, will also be a feature. There will, in addition, be a general exhibit of batteries, x-ray coils, high-frequency and ozone outfits, nebulizers, dry hot air apparatus, operating tables, instrument cabinets and chairs.

Black Manufacturing Company, Chicago. Space 3.—Cars of the high wheel type, especially adapted for use by physicians, will be shown here. The exhibit will be in charge of the company's New York manager, and demonstration cars will be on hand to prove the claims made for the company's product. The firm's president and sales manager expect to be in attendance at the exhibit at least one day, for the purpose of showing their appreciation of the large volume of trade that is coming to them from the members of the medical profession.

P. Blakiston's Son & Company, Philadelphia. Space 39.—At this exhibit sheets will be shown of a new work, "Diagnostic Methods," by Ralph W. Webster; also Knight and Bryant's "Ear, Nose and Throat." Attention will also be called to Binnie's "Operative Surgery" and Douglas' "Surgical Diseases of the Abdomen," Deaver's "Surgery of the Upper Abdomen," Gordon's "Nervous Diseases," Sluss' "Emergency Surgery," Casper's "Genitourinary Diseases," Rodman's "Diseases of the Breast," Wilcox's "Treatment," Gould's Dictionaries, and other standard books.

Borden's Condensed Milk Company, New York City. Space 44.—The food product which this firm will exhibit—malted milk—is claimed to be free from starch and cane sugar and to have had the casein converted into albumose. The manufacturers call particular attention to its keeping properties and to the fact that it is made under the best hygienic conditions.

Burroughs Wellcome & Company, New York City.—A selection of "tabloid," "soloid," "enule" and "vaporole" brand products will be shown by this firm as representing some of the latest achievements in scientific pharmacy and research work. Notable among these are "soloid" microscopic stains for the immediate production of fresh staining solutions and "soloid" brand products for the preparation of test solutions used in water, sewage and urine analysis. Other features of this exhibit will be an assortment of compact and complete medical equipments and first-aid cases for pocket, automobile, buggy or saddle.

Campbell Electric Company, Lynn, Mass.—The leading features claimed for the Campbell coil are simplicity of handling, durability of construction and compactness. The latest model gives the operator the use of eight currents, including a powerful x-ray current. Some of the expedients adopted for the protection both of operator and coil are the pilot light, which indicates any passage of current into coil, and the protected spark-gap.

G. W. Carnrick Company, New York City. Space 82.—The products of this company, antithermoline and trypsogen will be exhibited, and descriptive reading matter distributed to physicians. Drawings from microscopic sections of the human pancreas will be exhibited, showing the degenerative changes in the islands of Langerhans, as a result of diabetes.

Clark & Roberts Company, Indianapolis. Space 46.—This firm makes a specialty of high grade surgical furniture, and intends giving an interesting exhibit in this line. These goods are designed to represent the highest type of aseptic furnishings and they are said to be used not only by physicians, but by dentists, in public institutions and even in private houses. The exhibit should prove interesting both from an educational and scientific standpoint.

Clinical-Account System Company, New York City.—This firm's specialty is a simple and compact method of keeping complete records of all details of practice. It is said to have withstood every legal, medical and economic test. The claim is made that by this method and without the use of books, the physician has before him in readily accessible form, full case-histories and a complete system of accounting.

Columbus Buggy Company, Columbus, Ohio. Space 4.—This company will have an exhibit of automobiles, and an electric coupé for use in cities will be given some prominence. For use in the smaller towns and country districts they will show a motor Stanhope which it is claimed can be used 365 days in the year over all kinds of roads and in all kinds of weather.

F. A. Davis Company, Philadelphia. Space 75.—At this exhibit attention will be directed to "Sajous' Cyclopedia of Practical Medicine." As an outgrowth and natural development of the newer lines of thought, Dr. Sajous' work on "The Internal Secretions" will also come in for a good share of attention. The company will also display other important new books of interest and value.

Deimel Linen Mesh System Company, New York City. Space 48.—This company has, by a special process of manufacture, evolved a soft, pliable and porous fabric which it calls "linen-mesh." It is claimed that since its introduction fifteen years ago, the Deimel underwear has received the most friendly and grateful appreciation throughout the world. The exhibit will consist of garments in all styles and weights for men, women and children.

DeVilbiss Manufacturing Company, Toledo, Ohio. Space 88.—This company has for twenty years given special attention to the manufacture of atomizers, nebulizers and kindred appliances. At its exhibit the following subjects will be illustrated: How to apply medicines to surfaces difficult of access; low pressure atomization; the care of instruments and the disposition of instruments when not in use.

DeZeng-Standard Company, Philadelphia. Space 97.—This company will exhibit its eye-examining and eye-measuring instruments for use by the general profession, the De Zeng electric ophthalmoscope being among them. A special feature will be made of practical demonstrations on living eyes, and the diagnostic possibilities in constitutional disease through the eye, may be witnessed by all who are interested. This exhibit promises to be both interesting and instructive.

Electro-Surgical Instrument Company, Rochester, N. Y. Space 84.—As an example of modern instrumental methods of diagnosis and treatment, the exhibit of this firm will be of interest. There will be displayed all the latest devices for the direct, visual examination of the bronchi, stomach, bladder, etc. This company has originated many kinds of electrically lighted instruments and current controllers for both cautery and light.

Fairchild Brothers & Foster, New York City. Space 63.—This exhibit will appeal to physicians who are interested in the applied chemistry of the digestive ferments. It includes preparations for every purpose in therapeutics for which the pancreas and stomach gland extracts, and enzymes thereof, are at present utilized. An extract of the pancreas combined with the sodium salts of the conjugated cholic acids is among the latest "Fairchild" products.

Joseph C. Ferguson, Jr., Philadelphia. Spaces 60 and 61.—An interesting and up-to-date exhibit is promised by this firm, of instruments and supplies used in the treatment of affections of the eye, ear, nose and throat. As the work of this company is devoted exclusively to the manufacture of apparatus and instruments used in these special branches, it is intended to make the display both comprehensive and complete.

Fouts & Hunter Carriage Manufacturing Company, Terre Haute, Ind. Space 12.—The "cozy cab" which this firm will exhibit might be termed a composite product—many of the special features which it possesses having been suggested by physicians from widely separated points. The makers claim that the "cozy cab" represents the highest point yet attained in producing a light vehicle which will combine comfort and protection from weather conditions. The principles underlying the construction of the "cozy cab" top have been applied also to automobiles, so that the exhibit should interest every physician.

Globe Manufacturing Company, Battle Creek, Mich. Space 83.—The use of vapor massage, vapor vibration and mechanical vibration in diseases of the ear, nose, throat and lungs will be demonstrated at this exhibit. In addition to its line of nebulizers and air compressors the firm will show something new in the way of vibrators and electric air pumps. The new Byington anesthesia apparatus for administration of warm ether, vapor and air, or gas and oxygen will be a feature.

Sam J. Gorman Company, Chicago. Space 18.—A new principle is said to be utilized in the construction of this firm's instrument, the physician's vibragenitant, which is claimed to give an exceedingly high speed and true vibratory stroke. It is a carefully planned and well made instrument, and is guaranteed for five years.

F. A. Hardy & Company, Chicago. Spaces 56, 58 and 59.—An exhibit of ophthalmologic specialties will be made by this company, including the ophthalmometer and special prismatic apparatus. The new Hardy-Van Slyke dynamometer will be given prominence. In surgical instruments the firm will have on exhibition all of the latest eye, ear, nose and throat instruments, particularly those used in the Freer and Ballenger operations. Many other things of scientific and educative interest will form part of the display.

Holsman Automobile Company, Chicago. Space 5.—This firm will exhibit its new friction chain drive machines. It is claimed for these cars that they have the only absolutely direct drive in use on automobiles and in this particular, one of the dreams of automobile engineers has been realized. This company will also exhibit a four-cylinder all-ball-and-roller-bearing motor, which is said to be the only motor of this kind made. The peculiarity of this engine is the entire elimination of connecting-rods and connecting-rod bearings, the pistons being rigidly joined together by a web.

Horlick's Malted Milk Company, Racine, Wis. Spaces 34, 35 and 106.—The great care taken by this firm to obtain milk in its original purity, from healthy cows, with proper sanitary environment, and under hygienic conditions, will be emphasized at this exhibit. So also, the fact that the company possesses its own natural spring, the water from which it uses in mashing the grain and growing the barley malt, will be made a matter of attention.

Jewel Carriage Company, Cincinnati, Ohio.—"The Breeze" physicians' stanhope motor vehicle which will be exhibited by this firm is an automobile of the high-wheeled type, with physicians' top, and roll-up storm front. It is air-cooled and the company guarantees that it will travel any road that can be gotten over by a horse-drawn vehicle. The tires are solid and the carriage has ample space for instruments or other baggage.

Kelley-Koett Manufacturing Company, Covington, Ky. Spaces 19 and 21.—The principal attraction of this exhibit will be the Grosse Flamme coil equipment which will be demonstrated from both the alternating and the direct current. The firm will also feature its new mechanical interrupter. The instrument is claimed to be self-cleaning, practically noiseless in operation, and will operate from any good induction coil. There will also be shown a diagraphoscope especially adapted for making screen examinations, and skiagrams of the chest and stomach.

Keystone Electric Company, Philadelphia.—This firm will exhibit and demonstrate a full line of electrotherapeutic apparatus and will call special attention to its new high-frequency apparatus. If space will permit, dissected and sectional models of its various instruments will be on exhibition, showing the scientific principles on which they are constructed. A competent electrical engineer will be in charge, who will gladly furnish any information desired.

Kny-Scheerer Company, New York City. Spaces 24, 26, 27 and 28.—This firm will display the products of its manufacturing plants, located in the United States and in Europe. The scope which this company covers is rather extensive: it comprises (1) high grade surgical instruments; (2) aseptic hospital furniture and sterilizers; (3) electromedical apparatus including a new type of *x*-ray apparatus, and (4) scientific apparatus for laboratory work. Among these will be many new articles which no doubt will be of unusual interest to the surgeon and diagnostician.

Lactomode Company, Wheeling, W. Va.—The pasteurizer put out by this company is a compact household outfit consisting of two parts: (1) the lactomode, a glass bottle fitted with a rubber bulb pump for drawing out the lower milk and leaving the "top milk," and (2) the sterilizer composed of two metal vessels, one fitting within the other. The lactomode is placed inside the inner vessel and surrounded with cold water and the larger vessel is then filled with boiling water.

Lea & Febiger, New York City. Space 65.—There are certain publishers whose names on the title pages of books means that such works are of great value to a considerable section of the profession; for over a century the house of Lea has claimed this distinction. Recent publications of this firm include Dr. J. George Adami's "General Pathology;" Watson & Cunningham's illustrated and practical work on "Genitourinary Diseases" (2 vols.); Ballenger on the "Nose, Throat and Ear;" Dudley's "Gynecology;" Hare's "Practice;" Hare's "Diagnosis" and Hare's "Therapeutics;" the new edition of the "National Standard Dispensatory;" Park's "Pathogenic Micro-organisms," and Woolsey's "Surgical Anatomy." "Gray's Anatomy" and a number of the leading text-books emanate from this company's press, but the most important enterprise in which it is at present engaged is the publication of Osler's "Modern Medicine."

Ernst Leitz, New York City.—This firm will demonstrate its latest method of illustrating scientific lectures with the Leitz universal projection apparatus (reflectoscope), employing microscopic slides, *x*-ray plates, mounted and unmounted anatomic specimens, and even parts of the human body. It will also illustrate a method of teaching microscopy with the drawing and projection apparatus after Professor Edinger. Unstained micro-organisms will be shown with high power microscopes equipped with the reflecting condenser for observing under dark ground illumination.

Charles Lentz & Sons, Philadelphia.—This firm will show a number of new instruments of special interest to the practitioner. Among these will be Dr. Saxon's apparatus for the application of the Murphy treatment; Dr. Faught's sphygmomanometer, said to be the simplest and most efficient of its kind, and also Dr. Rupert's ether vapor inhaler, for the administration of ether in operations about the mouth and face. Examining and catheterizing electric cystoscopes will also be displayed and a phantom bladder will be used for practical demonstration.

J. B. Lippincott Company, Philadelphia. Spaces 79 and 81.—Modern publishing houses spend enormous sums of money in securing the artists to draw the pictures for their new medical books and in obtaining the finest reproductions of these drawings. "Piersol's Human Anatomy" is a profusely illustrated medical book of recent issue, and this firm has decided to exhibit a selection of the most important original watercolor drawings for this anatomy at the coming meeting. Special attention also will be called to Dr. James C. Wilson's "Medical Diagnosis;" Dr. Thomas M. Rotch's "The Roentgen Ray in Pediatrics;" Dr. G. G. Davis' "Applied Anatomy," and new medical dictionary, which has been compiled under the editorship of Dr. Henry W. Cattell.

Macalaster, Wiggin Company, Boston.—This company will exhibit a complete line of *x*-ray tubes, as it is making a specialty of tubes for the heaviest kind of apparatus. These tubes, it is claimed, are giving satisfaction to the most discriminating users; they stand up well and make good pictures. There will also be displayed a full line of goods for *x*-ray protection, including tube shields, gloves and aprons.

Malt-Diastase Company, New York City.—This company will exhibit maltzyme both in its natural state and separated into its constituent parts. It will also demonstrate the action of the preparation on starches and explain the various methods used in determining the hydrolytic power of diastasic products. The firm will also have on exhibit samples of U. S. P. extracts and various other products with the idea of illustrating the numerous variations in character of products that can be obtained from malt by different methods of manipulation.

McIntire, Magee & Brown Company, Philadelphia. Space 62.—It is said that every operator who has tried to hold the ordinary condensing lens between the fingers of the left hand, and at the same time, hold the patient's eyelid open when removing foreign bodies, will be impressed with the usefulness and adaptability of the Dr. Powell's adjustable condensing lens put out by this firm. This instrument, made with adjustable arm to fit over the third finger of the hand, is one of the many interesting things that will be shown in this exhibit.

W. H. McIntyre Company, Auburn, Ind. Space 11.—This firm's specialty is motor vehicles particularly adapted to the physician in small towns and in rural districts. Its two-cylinder, 14 horse-power, high wheel, solid rubber tire motor buggy offers the country practitioner a vehicle that, it is claimed, will save more than one-half of his "driving" time; will turn the monotony of the daily drive into a genuine pleasure and will enable him to have reading time as well as office hours, thus building up his practice, and with all, have time for social and home pleasures.

Mellin's Food Company, Boston. Space 38.—Every practitioner to whom the dietetic problems of infancy are ever arising, will be interested in this exhibit. The company claims that there have been some valuable additions made to its recent publication, the "Mellin's Food Method of Percentage Feeding." The modification of cow's milk to meet the varying requirements of the digestive capabilities of infants is a subject that is claiming the best thought of investigators, and this book is said to afford much valuable information.

William Meyer Company, Chicago. Space 66.—This exhibit will contain among other interesting features a new type of *x*-ray apparatus, capable of rapid radiographic work, the inverse discharge having been eliminated by compound selective windings. This is said to be especially valuable where the alternating current is used because all current can be used from a two or three phase system. Physicians who desire a resonator which can be used directly from the street current service without an induction coil, will have a chance to test its efficiency. A five cell chemical rectifier, converting alternating into direct current for operating a galvanic wall plate will be shown in operation.

E. B. Meyrowitz, New York City. Spaces 50, 52 and 54.—*X*-ray coil apparatus with high-frequency attachment will form part of this firm's exhibit, and there will be shown a special instrument for [illegible] different types of high-frequency currents [illegible] to a patient. The claim is made that with this instrument it is possible for a physician to obtain the same dosage from any type of apparatus, providing the apparatus has a sufficient range. A new interrupting device which is said to be capable of producing extra fine detail in skiagraphic work will also be displayed.

C. V. Mosby Medical Book and Publishing Company, St. Louis. Spaces 71 and 72.—A complete line of English, French and German medical publications will be shown by this firm. Of its own line there will be Crossen's "Gynecology," Munro's "Suggestive Therapeutics," Lockard's "Tuberculosis of the Nose and Throat," Hirschman's "Handbook of Rectal Diseases," and Schorer's "Vaccine and [illegible]" The company will also be the special age[illegible] 'Operative Surgery" and "A System of [illegible] and Murphy.

V. Mueller & Company, Chicago. Spaces 85 and 87.—These manufacturers of surgical instruments will have an exhibit of interest to specialists in every branch of surgery. They will demonstrate to the profession their latest instruments and apparatus for use in surgery of the larynx, esophagus and stomach. Examining and operating instruments for genitourinary work, as well as new instruments for blood examination, etc., should make a visit to this exhibit time well spent.

H. K. Mulford Company, Philadelphia. Spaces 29 and 31.—Here will be displayed tuberculins, bacterial vaccines, diphtheria antitoxin, serums, cultures of bacteria, wax models of diphtheritic infections from postmortem cases, models of smallpox and of skin diseases with which the smallpox eruption is liable to be confused and serums in scales for internal use. The firm's working bulletins on tuberculins and bacterial vaccines, educational charts, pictures, etc., will be shown; also an illustration of practical and impractical "concentration" of antitoxin.

Philadelphia Surgical Specialty Company, Philadelphia. Space 103.—The "multum in parvo" surgical case manufactured by this firm will be made a special feature of its exhibit. This "simplex surgeon," as it is called by its makers, is an easily sterilizable metal tube containing a straight bistoury, curved bistoury, eye-spud, curette, probe and combination forceps and hemostat. The complete outfit can be carried in the vest pocket.

Pomeroy Company, New York City. Spaces 101A and 101B.—The two features of this exhibit will be: (1) The Pomeroy frame truss and a demonstration of the frame method of truss fitting, which consists in controlling the hernia without any spring pressure; (2) the Pomeroy corset which has been specially designed for the retention of movable kidney and other displacements. It is claimed that in this corset the theoretical requirements of physicians for such an article have been made practical.

Prometheus Electric Company, New York City. Space 102A.—Electric sterilizers are extensively used in office and hospital practice for the sterilizing of surgical instruments. The electric sterilizer made by this firm will, it is claimed, boil water in less time than it takes over gas or alcohol, and with ordinary care will give good service for many years. They are the result of years of experience in the construction and equipment of electric sterilizers and are said to have proven very satisfactory wherever used.

Randall-Faichney Company, Boston. Spaces 13 and 20. In its exhibit, this firm is planning to present an old subject in a somewhat new light. Basing the plans on the claim that, for years, this company has maintained a higher standard of testing and grading clinical thermometers than was commercially required, and that this action lacks full appreciation only because of too limited knowledge on the subject, it intends to demonstrate the careful methods pursued. A line of oil grease guns for automobiles will also be exhibited.

REBMAN COMPANY, NEW YORK CITY. SPACE 98.—The special attraction at this stand will be pictures and illustrations of skin lesions reproduced in the natural colors. For the purpose of illustrating lectures on diseases, they are said to be unexcelled. The collection contained in the various publications in which they appear, is bound to prove of value to the general practitioner who has no opportunity of visiting the various institutes in Europe where the originals of these illustrations are to be found.

REINSCHILD CHEMICAL COMPANY, NEW YORK CITY. SPACE 69.—This firm will have on exhibition its new organic iron and manganese salts. These, it is claimed, can readily be dissolved in cold water, furnishing neutral, clear inodorous liquors; this enables physicians to have their liquors made when wanted, in any quantity, and always fresh. Professor Schmidt's regulin for chronic constipation will also be shown and sampled, as well as other specialties.

ROBERTSON MANUFACTURING COMPANY, CINCINNATI. SPACE 102B.—A new line of compressed air apparatus, single and multiple, nebulizers, atomizers, powder blowers, vacuum pumps, etc., will form part of this firm's exhibit; also a new sanitary hydro-vacuum floor cleaner adapted for use in sick rooms, hospitals, sanitariums, and physicans' offices. The cost of these various appliances has, it is claimed, been greatly reduced, while the efficiency has been fully maintained.

ROESSLER & HASSLACHER CHEMICAL COMPANY, NEW YORK CITY.—The articles this firm intends exhibiting are its special oxygen generator, the peroxids of magnesium and zinc, and the perborates of sodium. The chief claims made for its generator of oxygen are that the gas formed is absolutely pure, the outfit is small and simple, and the ease with which the gas can be made should extend the use of oxygen as a therapeutic agent.

ROSE MANUFACTURING COMPANY, PHILADELPHIA. SPACE 7.—The albosol diagnostic light will be conspicuously exhibited in the automobile section by this firm. The manufacturers of the Albosol light are also large manufacturers of automobile searchlights and acetylene gas generators, designated by the trade-mark "Neverout." A number of unique models will be shown, suitable for physicians' automobiles and carriages, such as small searchlights mounted on movable fixtures, enabling the doctor to read house numbers when making night calls.

W. B. SAUNDERS COMPANY, PHILADELPHIA. SPACES 93 AND 94.—This firm's exhibit will occupy a very prominent position just opposite the bureau of registration and information and the postoffice. Of the new books to be shown, the following are of particular interest: Keen's "Surgery," Kelly and Noble's "Gynecology and Abdominal Surgery," Gant's "Constipation and Intestinal Obstruction," Bonney's "Pulmonary Tuberculosis," DaCosta's "Physical Diagnosis," Jordon's "General Bacteriology," "Bier's Hyperemic Treatment" by Meyer and Schnieder, Schamberg's "Skin Diseases and Eruptive Fevers," and Bondless' "Medical Gynecology." There will also be shown advance sheets and illustrations of Kelly and Cullen's "Myomata of the Uterus," Volume V of Keen's "Surgery," Arny's "Pharmacy," McKenzie's "Exercises" and many others.

SCANLAN-MORRIS COMPANY, MADISON, WIS. SPACES 47 AND 49.—This firm will exhibit a line of porcelain enameled steel furniture and sterilizing apparatus for hospitals and physicians' offices. Its porcelain enameled furniture, introduced some eight years ago, is said to be rapidly taking the place of glass, owing to its cleanliness and durability. In high-pressure sterilizing apparatus, it will show a new construction, which is claimed to conform to the specifications authorized in advanced engineering practice, embodying the latest improvements in apparatus of this type.

SCHEIDEL-WESTERN X-RAY COIL COMPANY, CHICAGO. SPACES 77 AND 78.—This firm will make a special feature of its system of induction coils and compression apparatus for the making of detailed skiagraphs by the process of elimination. This method requires two induction coils arranged for exciting two x-ray tubes at once, the tubes being set at right angles to each other. The new apparatus will be demonstrated in full.

SCHIEFFELIN & COMPANY, NEW YORK CITY. SPACES 95 AND 96.—At this exhibit the products of the Lederle Antitoxin Laboratories are to be displayed, including diphtheria antitoxin, tetanus antitoxin, antistreptococcic serum and vaccine virus. The results of further improvements in the method for refining antitoxic sera will be demonstrated. There is also to be shown the body cavity disinfectant prepared in the Lederle Antitoxin Laboratories, in the form of a pure culture of the *Bacillus Bulgaricus* grown on media suitable for injection into these cavities.

SMITH, KLINE & FRENCH COMPANY, PHILADELPHIA. SPACE 86.—This exhibit will be entirely in the interest of Eskay's Food. Stock packages will be shown by the firm and in addition a practical demonstration will be given in the way of display jars, showing the composition of the food. One jar will contain the cereals, one jar the sugar of milk and eggs, while another jar will show the finished product. It will also demonstrate how the curd of cow's milk is formed in the human stomach when it meets the gastric juice.

SPEAR-MARSHALL COMPANY, CHICAGO. SPACE 70.—This firm will exhibit its leucodescent therapeutic lamp, for which a wide field of indication is claimed. The present apparatus is said to be the result of years of clinical and laboratory research. Within the past year it has been greatly improved, and its manufacturers now claim that it is the embodiment of progress in the use of radiant light in therapeutics.

E. R. SQUIBB & SONS, NEW YORK CITY. SPACES 36 AND 37.—Products representing its entire line—chemicals, pharmaceuticals, N. F. preparations, and tablets will be shown by this firm. The exhibit will be in charge of a competent corps of professional men, and, among other things, demonstrations will be given showing the rapid and complete disintegration of the Squibb tablets. Specimens of important National Formulary preparations will be another prominent feature.

DR. KATHERINE L. STORM, PHILADELPHIA. SPACE 104.—The exhibit of the "Storm" abdominal supporter will be in charge of some of the agents of the Storm Supporter Company. The inventor of this supporter reports that she has had more than seventeen hundred mail requests for information concerning this belt since she began advertising in medical journals. This would seem to indicate that the medical profession is interested in scientific mechanical support.

SURGICAL SUPPLY IMPORTING COMPANY, NEW YORK CITY. SPACE 45.—While this firm does not sell to physicians direct, it will have on exhibition a number of articles for which they are agents. Among these will be Bender's "Ideal Bandages," the seamless elastic hosiery of Rompler's, Delamotte's bougies and catheters and the high-grade surgical instruments manufactured by Alb. Stille of Stockholm.

TRUAX, GREENE & COMPANY, CHICAGO. SPACES 51 AND 53.—One of the features of this exhibit will be an automatic electric incubator in which both temperature and moisture are automatically controlled by electricity. It is said to be built on an entirely new principle, which can be applied to either infant incubators or to those used for bacteriologic purposes. Surgical instruments and physicians' specialties of standard patterns and many later models will be shown by this firm.

VAN ORDEN CORSET COMPANY, NEW YORK CITY.—This firm will demonstrate their surgical belt corset, which is said to differ from the ordinary abdominal belt with corset worn over it (as the average woman now wears it) by eliminating two opposing pressures—upward from the belt, downward from the corset. It is said to give definite support from the spine just where the physician prescribes it, and a firm comfortable circular belt covers the entire curve of abdomen and hips.

VICTOR ELECTRIC COMPANY, CHICAGO. SPACES 73 AND 74.—This company will call special attention to its improved form of portable x-ray and high-frequency apparatus. It is claimed that this outfit, which is in part designed on the Tesla principle, makes it possible to take radiographs which heretofore have required the use of much larger and expensive coils. The company will show a therapeutic arc lamp of new and original design, and will also demonstrate an improved form of apparatus for producing and controlling the sinusoidal currents.

WALSH WINDOW TENT COMPANY, MORRIS, ILL. SPACE 76.—This firm's new inside tent, which it claims is the last word

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[*For other information see second page following reading matter*]

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SALVAGE IN LIFE-INSURANCE

An interesting suggestion was brought before a recent meeting of the Association of Life-Insurance Presidents by Dr. Burnside Foster, editor of the *St. Paul Medical Journal*. It was in line with that of Prof. Irving Fisher, to which we referred.[1] The latter suggested that there were good financial, as well as philanthropic, reasons why the insurance companies should interest themselves in the extension of human life now made possible by the progress of sanitary science. He proposed the assignment of a sum of $200,000 a year by the companies to attain this end, by "the sanitary education of the public" and by "stimulating municipalities, states and the federal government to greater efforts for the preservation of health."

The suggestion Dr. Foster makes is that life-insurance companies should keep themselves informed as to the physical condition of their policy-holders by offering to give them free medical re-examination at five-yearly or even shorter intervals. The advantage expected to accrue to the companies consists in the saving consequent on the extension of the average life of the policy-holders.

Many objections were raised to this suggestion. Most life-insurance officials were convinced that the mere proposal of such an examination would "scare policy-holders almost to death." The attendant expense, too, seemed to many of those present to put it out of the question. Some even declared that if, after such re-examination, a policy-holder was declared to be in good health, he would be much more inclined to let his policy lapse if it were difficult to keep up.

Many of these objections hold just as strongly against the preliminary examination for life-insurance. Indeed, half a century ago they were urged so strenuously that it took some time to induce the companies to adopt the principle of requiring a preliminary medical examination of all applicants. No doubt, to some timorous people this medical examination is a trying ordeal; it causes some to hesitate and restrains others from taking out insurance at all. But custom has largely broken down this dread; most persons now regard the medical examination as a matter of course, and some welcome it.

The expense of this examination and the fear that it would deter applicants meant so much to life-insurance companies that they hesitated long before adopting preliminary examinations; then the smaller companies took it up half-heartedly. It was soon demonstrated, however, that the medical examinations of a single year saved the company enough money to run the medical department for many years.

None of the objections against Dr. Foster's suggestion will have weight for those who know the story of life-insurance in its relation to medical examination. There seems no doubt that such periodical examinations might be of great service in prolonging life. Diseases like tuberculosis, diabetes, and even nephritis, may run so insidious a course as not to be suspected at all by the patient, while a physician may readily discover the early symptoms and by proper directions enable the patient to avoid the more serious manifestations for years—perhaps for a normal term of life.

Provision against loss, though new in life-insurance, is not a new idea in other branches of insurance. The fire-insurance companies now maintain salvage corps whose duty it is, in case of fire, to go into insured buildings and protect valuable property from damage by fire or water, thus saving many things which would otherwise be a total loss to the company. When the idea was first broached, it was objected that such a salvage corps would be expensive; that its presence in houses would be resented by owners; and that insurers would be afraid of having damaged goods imposed on them by the insurance company. Experience, however, has proved the value of the salvage corps, and now there is no institution more firmly rooted in fire-insurance.

It has often been suggested that a medicobiologic examination at regular intervals—a measure foreshadowed by this suggestion for life-insurance companies—would lengthen life and save much suffering. If death were not inevitable and suffering not preventable, then men might be justified in refusing to provide for the one and to guard against the other; but "life is a dangerous thing at best, and very few of us get out of it alive." Death can not be postponed by a childish refusal to look certainty in the face. Sometimes, however, it can be deferred—often the worst trials attendant on it can be mitigated—by a seasonable and resolute determination to know the truth; and a realization of these facts is constantly growing among intelligent people.

It seems clear that the suggestion as to re-examination of policy-holders must bear fruit, if not now, then at some time when insurance officials shall be large-minded and progressive enough to appreciate its value.

THE MANNER OF EXTENSION OF CANCER

If we stop to consider the actual rate at which lymph must travel in the finer lymphatics, it becomes at once evident that the velocity must be far too low to permit it to have much effect in washing cancer cells or similar objects from one place to another. Furthermore, the very fact that in cancer the lymphatics are extensively blocked by cancer growth must make the rate of lymph flow rather less than normal. Nevertheless the assumption and the teaching until quite recently have been almost universal that cancer cells were washed from the primary growth to the regional glands by the lymph stream. By his demonstrations of the continuity of cancer growth from the primary tumor into the regional lymphatic channels, spreading centrifugally by direct extension and largely independently of any washing away of cells, Handley did a great service to surgical pathology and surgical practice, for he demonstrated once and for all the necessity of removing as much as possible of the tissue intervening between the primary tumor and its lymphatic metastases. This "permeation theory" of cancer growth has, as Handley himself says, been accepted and applied with especial readiness by American surgeons, while Continental surgeons have been slow to appreciate its significance. In a recent address[1] he discusses the reparative and healing processes that take place in growing cancers, and their bearing on the extension of malignant growths by permeation.

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[1] The Journal A. M. A., April 17, 1909, p. 1262.

The life cycle of a typical carcinoma he considers to be somewhat as follows: At first the growth extends on all sides in a centrifugal manner into the tissue interspaces, and thence into the lymphatic vessels; at this time cancer cells may be swept away from their attachments and into the regional glands, but this is a minor and subsidiary process. As the permeating growth spreads, the growing edge becomes cut off from the primary center by fibrosis, and as the edge continues to spread invisibly, small macroscopic tumor nodules manifest themselves in the area of fibrosis at points where the cancer cells have not been entirely destroyed by the fibrosis. Soon the central part of the primary growth also begins to become fibrotic, degenerates, and forms an ulcer spreading centrifugally likewise. If the patient lives long enough the proliferative energy of the primary and nearest secondary growths may become exhausted, so that the ulcer heals and the satellite nodules vanish, while the permeative growing edge usually continues its spread, leaving in its track fresh secondary nodules. In other words, every aggregation of cancer cells has a definite life cycle, tending to grow for a time and then to degenerate spontaneously and undergo fibrosis, these changes progressing from the center step by step toward the periphery. Ordinarily, this life cycle is interrupted by the death of the host of the cancer, but in the more slowly growing cancers there is often time for the healing processes to become very evident in the centers of both primary and secondary tumors. As Handley has demonstrated, if the spread of subcutaneous cancer nodules is watched carefully it will be found that the appearance of new nodules farther from the center is accompanied by disappearance of the older, more centrally located secondaries, and microscopic studies may prove that the cancer cells have entirely vanished from these regions.

As a matter of fact, the symptoms of cancer are largely caused by the defensive fibrotic processes rather than by the growth of the tumor cells. The typical features of mammary cancer, such as retraction of the nipple, flattening of the breast, and fixation of the skin, are all produced by the defensive fibrosis rather than by the destructive infiltration and growth processes. The dense thickening of the skin in cancer *en cuirasse* may be due solely to fibrosis without any existing invasion by cancer cells being demonstrable, and the edema of the arm is probably caused by lymphatic fibrosis resulting from the natural curative processes which accompany the growing cancer.

Handley's conception of the mechanism of extension and metastasis of cancer, based on careful clinical and laboratory studies, seems to be pathologically sound and practically important, and in any case it carries with it a logical picture of the events that are taking place in growing cancers which can not fail to be of help to the surgeon who has to remove and treat such conditions.

ABSOLUTE VALUES IN PERCUSSION

The statement is frequently heard in connection with the physical signs of early pulmonary tuberculosis that any demonstrable change in the percussion note over the lungs indicates a process which can no longer be designated as incipient. The impression is almost universal that abnormalities in the auscultatory phenomena precede by a considerable period of time any reliable signs that may be elicited by percussion. This conception has been challenged by C. E. Waller,[1] of Halahult, Sweden, who urges that more attention be paid to absolute findings in the percussion of any given area. He thinks that the disrepute into which percussion has fallen is due in a large measure to the habit of employing only the comparative method, in which the percussion note over analogous areas on the two sides of the chest are contrasted. The opportunity for errors of interpretation in the use of this method is obvious, yet it is true that it is largely employed to the exclusion of such careful consideration of the percussion note in itself as is given to the quality of the breath sounds or of the voice transmission.

Waller describes various degrees of impaired resonance which, he asserts, may be absolutely identified and which succeed each other from the earliest stage of tuberculous infiltration to the stage of absolute solidification. The earliest change noted is a shortening of the typical non-tympanitic pulmonary note brought out at the end of quiet expiration or the beginning of inspiration by very light percussion. At this time, there is also added a slight tympanitic element due to the relaxation of the congested lung. The stage beyond this lacks the non-tympanitic sound during the whole respiratory phase with light percussion unless the depth of respiration is increased, when it appears when the lungs are full. With more intense infiltration the normal pulmonary note may be brought with slight increase in the force of percussion, though this increase will not suffice for the next stage of consolidation. The most forceful percussion stroke used—and this is only relatively strong—distinguishes a fourth and fifth degree of dulness in one of which the pulmonary note may still be recognized and in the other not.

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[1] Brit. Med. Jour., March 6, 1909; abstracted in THE JOURNAL, April 3, 1909, p. 1146.

[1] Am. Jour. Med. Sci., April, 1909.

No description of percussion technic or of the sounds produced will convey to every reader the same impression and so no scale of dulness such as that described can ever be of very much value as a general standard, but for the use of any one observer such a scale would prove of great value in recording changes in a given chest or as a standard of comparison. In these days when so many tempting short cuts to diagnosis are being offered the practitioner it is gratifying to record an effort toward refinement in physical diagnosis on which, after all, must rest the final judgment as to the condition of the patient. Percussion is an aid which deserves more attention than has been accorded it of late.

THE ATLANTIC CITY SESSION

We publish this week considerable matter relative to the coming session of the American Medical Association. While the local profession and the citizens of Atlantic City are making special efforts to assure a most enjoyable time for those who attend, and while the location and its environs are admirably adapted for rest and recuperation, still after all, the scientific part is the most important. A casual glance over the Section programs, which appear in this issue, will show that the scientific work will be fully up to the high standard of recent years. All of the programs are excellent, some exceptionally so.

Attention should be called to a symposium in the Section on Pharmacology and Therapeutics. This takes up, from every viewpoint, one of the most practical and live questions of the day, "The Present Status of Serum and Vaccine Therapy with Special Reference to the Products on the American Market." As will be noticed, the subject is to be handled in all its phases by authorities, and the result of such a discussion must throw light on many obscure points.

Another important symposium is that in the Section on Practice of Medicine on "Physical Therapeutics" —certainly a topic to attract interest and discussion. Another practical question will be treated in a symposium in the Section on Nervous and Mental Diseases, "The Sero-Diagnosis of Syphilis and Its Relation to Diseases of the Nervous System." The Section on Pathology and Physiology is especially to be congratulated on the splendid manner in which many of the live questions of the day in physiology and pathology will be treated by well-known men, including some outside of the profession who are eminent in these departments.

Taking it all in all, we believe we are justified in saying that the outlook for splendid scientific work at the coming Atlantic City session is more promising than at any former meeting.

A PRACTICAL METHOD OF REVISING THE PHARMACOPEIA

A practical measure, looking toward the inclusion in the Pharmacopeia of unofficial remedies that stand the test of clinical experience, has been initiated by the Section on Ophthalmology of the American Medical Association. From fifty of the best-known drugs selected from "New and Nonofficial Remedies," fourteen were culled by the committee of the section as having a sufficiently wide employment by ophthalmic surgeons to justify their general recognition. A list of these fourteen drugs was sent on a return postal card to each of the 935 members of the section, with instructions to mark the six drugs which seemed most useful. The replies will be tabulated, and those remedies that have received the largest number of votes will be officially recommended by the section for inclusion in the next revision of the Pharmacopeia. The fourteen remedies named are: adrenalin, alypin, argyrol, beta-eucain hydrochlorid, chloretone, collargol, dionin, euphthalmin, fibrolysin, fluorescein, holocain hydrochlorid, novocain, protargol and stovain. The idea seems eminently practical and its adoption by the other sections would furnish a mass of cumulative evidence in regard to many unofficial preparations that will be of great value from a clinical viewpoint. Moreover, it would cover so broad an area of investigation as to place the results beyond the possibility of any charge of partiality.

THE INSANE AND JURIES

The tendency of juries (often manifested also by judges in habeas corpus proceedings) to give the benefit of the doubt to those wishing to escape from confinement as lunatics is well known. In his latest report Dr. Robert B. Lamb, superintendent of the State Hospital for the Criminal Insane at Matteawan, New York, has followed up the record of the thirty-four inmates who have been discharged by juries from that hospital as sound in mind. According to his report, fourteen of these returned eventually, either to prison or to the asylum, eight became troublesome to their families, three were unable to earn a livelihood, six disappeared, two committed suicide, and only a single one of the thirty-four was able to support himself partially after his discharge. This is a good commentary on the practice of freeing lunatics by the courts; and it will be fortunate if sooner or later there is not some fatal result from the release of these patients, twelve of whom were charged with murder in the first degree. It may be said that Matteawan is an asylum for criminals which therefore may not fairly be compared with institutions for the non-criminal insane. There is, however, some reason to be given for the detention of each insane person confined in an institution; for, with the increase of insanity at the present time in most of our communities and the consequent crowded conditions of the asylums, the officials are not excessively anxious to retain any patients that can safely be discharged. Yet Dr. Lamb's report avers that "in all cases referred to which have been submitted to juries for verdict, the finding has been uniformly in favor of the lunatic." Dr. Lamb suggests that the methods required for the confinement of the criminal lunatic should be demanded for his release—the certificate of two competent medical examiners and the approval of the judge of a court of record. This rule could be applied as well to inmates of non-criminal asylums. It is mistaken kindness to the individual, as well as a grave injustice to society, to turn adrift an irresponsible derelict, incapable of pursuing a true course and threatening wreck to others.

Medical News

ALABAMA

Graduation Made a Requirement.—It is announced that on and after July all applicants for license to practice medicine in the state must be graduates of reputable medical colleges. This leaves only four states, Arkansas, Massachusetts, Mississippi and Tennessee, which continue to examine non-graduates in medicine for license to practice.

Hospital Staff Appointed.—The following medical and surgical staff has been appointed for the Mobile City Hospital for the six months beginning April 1: Surgery—Drs. William McD. Mastin, Douglas G. Campbell, Harry T. Inge, James J. Peterson, and Joseph Schwartz; medicine—Drs. Ernest S. Feagin, Neal E. Sellers, Nicholas A. Madler, and Lee W. Roe; dermatology—Dr. M. Toulmin Gaines: obstetrics—Dr. R. Clarence Jones; pathology—Dr. C. Winthrop; eye, ear, nose and throat—Dr. Alfred E. Maumenee; and county physician—Dr. William G. Ward.

Society Meetings.—At the annual meeting of the Autauga County Medical Society, held in Prattville, March 11, the following officers were elected: Dr. Harry E. Downs, Billingsley, president; Dr. Clarence C. Rice, Prattville, vice-president; Dr. John E. Wilkinson, Prattville, secretary-treasurer; Dr. Robert M. Davis, Prattville, health officer: Drs. Malcolm D. Smith, John W. Hagler, Clarence C. Rice, Robert M. Golson, and Robert M. Davis, all of Prattville, county board of health; Drs. Harry E. Downs, Billingsley, and A. James Tankersley, Autaugaville, delegates to the state association, and Dr. Clarence C. Rice and John E. Wilkinson, Jr., Prattville, alternates.—At the annual meeting of Blount County Medical Society, held in Oneonta, April 6, the following officers were elected: Dr. Samuel T. Shepherd, Lehigh, president; Dr. David S. Moore, Clarence, vice-president and delegate to the state medical society; Dr. Marvin Denton, Cleveland, secretary-treasurer; Dr. William C. Miles, Village Springs, delegate to the state medical society, and Floyd G. Donehoo, Oneonta, city and county physician.

CONNECTICUT

February Deaths.—There were 1,306 deaths reported to the State Board of Health during February, 58 less than for January, 209 less than for February, 1908, and 99 less than the average February deaths for the five years preceding. The death rate was equivalent to 15.1 per 1,000 per annum. The deaths from infectious diseases were 191, or 14.6 per cent. of the total mortality.

Infectious Diseases.—During February, there were reported to the state board of health more than 783 cases of measles in 39 towns, 129 cases of scarlet fever in 32 towns, 2 cases of cerebrospinal meningitis in 2 towns, 152 cases of diphtheria in 35 towns, more than 91 cases of whooping cough in 15 towns, 23 cases of typhoid fever in 13 towns, and 105 cases of consumption in 29 towns.

Society Meetings.—At the one hundred and seventeenth annual meeting of Fairfield County Medical Society, held in Bridgeport, April 13, the following officers were elected: Dr. Samuel Pierson, Stamford, president; Dr. Herbert E. Smyth, Bridgeport, vice-president; Dr. Frank W. Stevens, Bridgeport, secretary; Dr. James D. Gold, Bridgeport, treasurer; Dr. Samuel M. Garlick, Bridgeport, councilor; Drs. William S. Randall, Shelton, Edward S. M. Smith, Bridgeport, and David C. Brown, Danbury, censors; and Drs. James D. Gold, Bridgeport, William J. Tracey, Norwalk, George H. Noxon, Darien, John W. Wright, Bridgeport, and Frank W. Stevens, Bridgeport, delegates to the state society.——The one hundred and seventeenth annual meeting of the Middlesex County Medical Society was held in Middletown, April 8, when the following officers were elected: President, Dr. Michael D. Murphy, Middletown; vice-president, Dr. Mathew W. Plumstead, East Haddam; censor, Dr. James M. Keniston and James H. Kingman, Middletown; county reporter, Dr. James Murphy, Middletown; state councilor, Dr. James H. Kingman, Middletown, and delegates to the state society, Drs. Charles E. Stanley and Charles B. Young, Middletown.——Hartford County Medical Society, at its one hundred and seventeenth annual meeting, held in Hartford, April 6, elected the following officers: President, Dr. Charles D. Alton, Hartford; vice-president, Dr. Herman Strosser, New Britain; secretary-treasurer, Dr. Frederick B. Willard, Hartford; councilor, Dr. Oliver C. Smith, Hartford; censor, Dr. Edward R. Lampson, Jr., Hartford, and delegates to the state society, Drs. Frederick B. Willard, Phineas H. Ingalls, Michael H. Gill and John H. Rose, Hartford, Harry B. Rising, Glastonbury, William R. Tinker, South Manchester, and Erastus P. Swasey, New Britain.——At the one hundred and eighteenth annual meeting of the New London County Medical Society, held in Norwich, April 1, the following officers were elected: President, Dr. George H. Jennings, Jewett City; vice-president, Dr. Patrick J. Cassidy, Norwich; clerk, Dr. Edwin C. Chipman, New London; councilor, Dr. Edward P. Brewer, Norwich; censor, Dr. Charles E. Brayton, Stonington (re-elected), and delegates to the state society, Drs. Dennis J. Shahan, Norwich, and George N. Miner, Waterford.

COLORADO

Appropriation for Feeble-Minded.—The legislature has made an appropriation for the establishment of a State Home for Feeble-Minded on farm lands near Denver.

Additions to Hospitals.—The Steele Memorial Hospital, the municipal hospital of Denver for contagious diseases, is about to build an addition costing $20,000.——St. Joseph's Hospital, Denver, will build an addition to be used as a home for nurses.

Entitled to Salary as Trustee.—The assistant attorney-general has decided that Dr. William W. Grant, Denver, is entitled to salary during his term of office as trustee of the State Hospital for the Insane, in spite of the fact that the legislature two years ago abolished salaried boards.

Variations in Deaths.—The ninth biennial report of the State Board of Health shows a substantial decrease in deaths from typhoid fever and scarlet fever, but an increase of nearly 100 per cent. in deaths from diphtheria. An effort will be made to introduce the free distribution of antitoxin throughout the state.

The People Must Now Decide.—Governor Shafroth on March 23 signed House bill No. 50, which provides for the submission to the people of a constitutional amendment permitting the establishment of a medical department of the State University in Denver, in which students may take the last two years of their medical course.

Personal.—Dr. Abraham L. Fugard has been elected mayor of Pueblo.——Dr. Ralph E. Morris, Cripple Creek, has been appointed registrar of Teller county.——Dr. Richard W. Corwin, Pueblo, has been appointed a member of the board of regents of the American School of Archeology, Santa Fe, N. M.——Dr. Clara M. Moore, Denver, has been appointed physician in charge of the woman's department of the State Hospital for the Insane, Pueblo.

Asks Medical Society to Name Candidate for City Physician.—At a special meeting of the Larimer County Medical Society, April 21, a communication was read from the mayor of Fort Collins, Colo., stating that it was the wish of the majority of the aldermen that the society name a candidate for the position of city physician, to be acted on at a special meeting of the council. The invitation of the mayor was accepted, the society balloted for a nominee for the position, and Dr. Albert W. Rew was declared the unanimous choice of the society.

DELAWARE

Antituberculosis Meeting.—The Delaware Antituberculosis Society, at its annual meeting, held in Wilmington April 13, elected the following physicians, members of its board of directors: Dr. John J. Black, Newcastle, and Drs. Harold L. Springer, Albert Robin, John P. Wales, Peter W. Tomlinson and Abram E. Frantz, of Wilmington.

State Board of Health Changes.—The personnel of the State Board of Health has been changed by the declination of the president, Dr. Ezekiel W. Cooper, Camden, to accept reappointment. Dr. John W. DeWitt, St. Georges, has beeen elected president; Dr. Abram E. Frantz, Wilmington, has been reelected secretary-treasurer, and Drs. William F. Davis, Dover, and William F. Haines, Seaford, have been elected members of the board.

Work Against Tuberculosis.—Dr. Albert Robin, Wilmington, in charge of the Wilmington Dispensary for Tuberculosis, in his annual report, states that 114 new patients were seen during the year; 349 visits were made to the dispensary by these patients, and that visiting nurses made 1,679 visits to the homes of patients. He recommends that the dispensary be located in a more central part of the city and in a building by itself; that additional nurses be provided as soon as the work demands it, and that more physicians be invited to work in the dispensary as well as in the homes of patients.

INDIANA

Protest Against Use of Names.—The Wayne County Medical Association has issued a second protest against the use of names of its members in lay journals in connection with medical and surgical cases.

Indiana University Adopts Higher Requirements.—At a recent meeting the faculty of Indiana University School of Medicine voted unanimously to require for entrance in adition to a four-year high school course, one year of collegiate work beginning this fall and two years of collegiate work beginning in the fall of 1910.

Appeal Regarding Meningitis.—Dr. John H. N. Hurty, Indianapolis, secretary of the State Board of Health, has issued an appeal entitled "Let Us Save 200 Lives This Year from Meningitis," in which he urges the use of the Flexner antimeningitis serum which can be obtained without expense by any practitioner of the state from Dr. Walter D. Hoskins, Indianapolis, or Dr. Homer Wooley, Bloomington, both of whom are professors in the medical department of the Indiana Medical University. It is to be hoped, says Dr. Hurty, that the use of the anti-meningitic serum will not be delayed, as was the case with the diphtheria antitoxin.

ILLINOIS

Personal.—Dr. William B. Peck, Freeport, has returned from Europe.——Dr. Louisa L. Munch, Joliet, was operated on for appendicitis in Mary Thompson Hospital, Chicago, April 14. ——Dr. Orville B. Blackman, Dixon, was seized with a cerebral hemorrhage, April 20, but is reported to be improving.

Conference on Public Health.—A public health conference was held at the University of Illinois, Urbana, April 23. In the absence of the president, Edmund A. James, the vice-president, Prof. Thomas J. Burrill, delivered the address of welcome. Dr. George W. Webster, Chicago, president of the State Board of Health, spoke on the work of the board and pointed out the deficiencies of our state health organization. He suggested that the Governor should appoint a commission to study the health laws and organizations of other states and recommended the needed improvements in this state. More comprehensive instruction in public health and closer cooperation between the university and the various state boards which are now concerned with the public health are necessary. Dr. James A. Egan reviewed the existing cooperation between the university and the State Board of Health and considered the proposed water survey legislation in some detail. He favored retaining the laboratory of the board at Springfield. Vice-President Burrill discussed the proposed course in sanitary science at Cornell University and the advisability of undertaking similar work here, indicating the scope of the proposed organization. Dr. William A. Evans, commissioner of health of Chicago, gave a thorough discussion of the management of the Chicago milk problem. The magnitude of this part of the work may be imagined from the fact that milk is received from 12,000 farms, situated in four states. Every farm is inspected and record maps of the farm, indicating its equipment, its sanitary condition and its surroundings, are made by the inspectors and preserved. The sampling and testing of the milk is a large undertaking. Over 30,000 eight-gallon cans of milk are received daily. The enforcement of the new ordinances requiring satisfactory tuberculin test of the cows or pasteurization of the milk is proving very satisfactory, and the educational effect upon the milk producers is exceedingly valuable. Prof. W. T. Sedgwick, Boston, spoke on the profession of health officer as offering a career for trained young men, and mentioned several of the smaller towns in the East where such men devoted their full time to local sanitary matters, to the great benefit of the community. He pointed out the pernicious influence of politics upon public health work. Prof. A. N. Talbot considered the work of the municipal engineer and some of the larger sanitary engineering problems of the state. Dr. John Marten, health officer of Tolono, spoke of the work of the local health officer, pointing out the very serious attitude of the Illinois public in expecting its health officers to do efficient work, without paying them anything for their services or even defraying the necessary expenses of the work. The greatest resource of the local health officer is the aid of the State Board of Health and the university, when he calls on them for advice. These resolutions were adopted:

Resolved, That an annual conference of health officers should be held in the state of Illinois, to provide for the instruction of health officers in recent advances of science and of practical experience related to the public health, for the free discussion of public health problems in the state, and for the expression of opinion by the assembled health officers on methods of promoting the public health, and related subjects.

Resolved, That the state university be asked to provide opportunity for more systematic investigation and more comprehensive instruction in hygiene, sanitary science and the sciences related thereto.

Resolved, That a committee of three be appointed by the chair to present to the university and to the State Board of Health a plan for carrying out the suggestions made in the above resolutions and to render assistance in securing the necessary legislation.

Resolved, That it is the sense of this meeting that a commission should be appointed by the governor, in accordance with the suggestion embodied in Dr. Webster's paper, to study the health departments of other states and of our own and to report on the possibility of improvement in the organization of the Illinois department of health.

It is to be regretted that, despite the wide advertisement of this conference, to which invitations were sent by the state university and the State Board of Health, only five of the 5,400 city, village and county health officers of the state were present, and of these three were from Champaign county and one from Chicago.

Chicago

Bequest for Hospital.—The Francis E. Willard Temperance Hospital is one of the two principal legatees of the estate of the late Dr. Thomas D. Fisher, Leroy, which is valued at $75,000.

Compulsory Vaccination.—At the meeting of the council of the Chicago Medical Society April 13, resolutions, introduced by Dr. William L. Baum in support of a bill making vaccination compulsory, were adopted.

Health Institute Proprietor Fined.—M. Janik, proprietor of the Krakow Institute on Milwaukee avenue, charged on complaint of the State Board of Health with practicing medicine without a license, is said to have been found guilty by a jury in the municipal court, April 22, and fined $100.

Personal.—Dr. Jacob Frank has been appointed attending surgeon of the Columbus Hospital.——Dr. William A. MacFarlane has been ill seven weeks with pleuropneumonia.——Dr. Frank L. Rose, who is about to remove to Lusk, Wyo., was given a farewell dinner April 22, by the Englewood Branch of the Chicago Medical Society.——Mr. Harlow N. Higinbotham has been elected president and Dr. William A. Evans, secretary of the board of directors of the new Chicago Municipal Sanatorium.

New Dispensary.—An addition to the dispensaries of Chicago is the Calumet Avenue Branch of the South Side Dispensary, erected adjacent to Mercy Hospital by the Northwestern University Medical School at a cost of $30,000. A large faculty room, two recitation rooms, thirteen small examining rooms, drug rooms, a photographic room, an *x*-ray room are on the first floor; a laboratory occupies the entire rear of the floor; on the second floor there is an assembly hall for clinical demonstrations, with a seating capacity of 300.

IOWA

Wills Library to Medical School.—By the will of the late Philo J. Farnsworth, Clinton, his extensive library of medical and scientific works is bequeathed to the Medical Department of the Iowa State University, Iowa City.

Unlicensed Practitioners Found Guilty.—James E. Myers, Lansing, indicted on the charge of practicing medicine without a certificate from the State Board of Health, on complaint of the Allamakee County Medical Society, is said to have been found guilty.——"Dr." Adkins, a graduate of a school of "vital science," charged with practicing medicine without a license, is said to have been found guilty at Montezuma, April 8, and fined $300.

Appropriations for the Tuberculosis Conflict.—At the session of the state legislature, just closed, there was appropriated for new buildings at the *State Sanatorium* for the Treatment of Tuberculosis, Oakdale, $55,000; there is available for maintenance for the next two years $96,000, and $10,000 was appropriated for lectures on tuberculosis and the education of the public. The new buildings will enlarge the sanatorium to a capacity of 120. Its present limit of 77 has been taxed since October last.

Personal.—Dr. Thomas U. McManus, Waterloo, has been appointed a member of the State Board of Health, vice Dr. Joseph H. Sams, Clarion, term expired.——Dr. Charles M. Harrington, Knoxville, is reported to be critically ill with appendicitis.——Dr. Aaron A. Noyes, Mason City, a member of the first class that graduated from an Iowa medical college, was the guest of honor at a banquet given by the faculty to the students and alumni of Drake University Medical School, Des Moines, April 5.

MARYLAND

Convicted for Violation of the Cocain Ordinance.—Dr. Ralph J. Schirman, Baltimore, is said to have been convicted, April 22, of violating the cocain ordinance by prescribing the drug for habitual users. Sentence was suspended under a motion in arrest of judgment.

Personal.—Dr. William Osler arrived in the United States from England, April 21.——Dr. Charles H. Medders, Baltimore, who sued the Western Maryland Railroad for $5,000 for services rendered in a collision four years ago, is said to have been given a verdict for $150.

Alumni Banquet.—The annual banquet of the General Alumni Association of the University of Maryland was held April 22. Among the medical speakers were Dr. Joshua W. Hering, Westminster, comptroller of the state, and Dr. John C. Hemmeter, Baltimore, of the faculty of physics.

Society Meeting.—Montgomery County Medical Society held its annual meeting in Rockville, April 20, and elected the following officers: President, Dr. Otis M. Linthicum, Rockville; vice president, Dr. William L. Lewis, Kensington; secretary-treasurer, Dr. John L. Lewis, Bethesda, and censor, Dr. William T. Pratt, Potomac.

Increase in State Appropriations Asked.—The following applications from Baltimore institutions for increased state appropriations have been made to the Board of State Aid and Charities: Hebrew Hospital, from $7,000 to $12,000; St. Joseph German Hospital, from $7,500 to $15,000; Hospital of the Good Samaritan, from $1,200 to $5,000; and South Baltimore Eye, Ear and Throat Hospital, from $2,000 to $6,000.

MISSISSIPPI

Personal.—Dr. Harry H. Harrison, Jackson, was seriously injured in a runaway accident April 7.——Dr. Fred. L. Meyer, state lecturer for the State Board of Health on Hygiene and Sanitation, delivered a popular lecture in Meridian, April 22, on "Mosquitoes and Flies."

College to Open.—The chancellor of the University of Mississippi announces that the University Medical College will open at the Charity Hospital, Vicksburg, September 23. The contract for the construction of the building in which the medical department is to be located has been awarded, and it is expected it will cost between $9,000 and $12,000.

State Society Meeting.—At the annual meeting of the Mississippi State Medical Association, held in Jackson April 12 to 14, under the presidency of Dr. James W. Gray, Clarksdale, the following officers were elected: President, Dr. Dudley W. Jones, Fernwood; vice presidents, Drs. Joseph C. Armstrong, Water Valley, and Thomas Purser, McComb; treasurer, Dr. Hugh L. Sutherland, Rosedale (re-elected); councilors, First District, Dr. Thomas M. Dye, Longwood, and Second District, Dr. James B. Bullitt, University; delegate to the American Medical Association, Dr. James W. Gray, Clarksdale, and alternate, Dr. H. A. Minor, Macon. Before its adjournment, the association renewed its recommendation for the establishment of a state charity hospital in Jackson, and a memorial on this subject will be presented before the next legislature. It was decided to meet in Oxford in 1910.

MISSOURI

Appeal Dismissed.—The appeal of Dr. Erasmus A. Duncan, Salem, from the decision of the State Board of Health, which revoked his license to practice medicine on account of alleged issuance of prescriptions for whisky in violation of the law, is said to have been dismissed in the Circuit Court April 3.

Personal.—Dr. W. Francis Mitchell, Lancaster, has been an invalid for eight months with a serious disease of the neck.——Dr. George Williams, Odessa, has been appointed superintendent of the State Hospital for the Insane No. 4, Fulton, vice Dr. Porter E. Williams, term expired.

City Hospital for Sedalia.—A committee from the Pettis County Medical Society has asked Dr. Wood, the owner of Maywood Hospital, Sedalia, whether he would be willing to sell the institution, that it might be converted into a city hospital. He put a price of $40,000 on the building and equipment, and the question is to be voted on by the society at its next meeting.

Bill to Reduce Dissecting Material.—House Bill 456, to eliminate hospitals and poorhouses as sources of supply for anatomic material, thereby reducing the latter four-fifths, has passed the Senate and is in the hands of the house committee on public health and legislation. Dr. Robert J. Terry, St. Louis, has introduced a resolution setting forth that this bill in effect defeats the purpose of the present law which authorizes the use of the bodies of unclaimed dead for the pursuit of medical studies, and that the passage of the bill would result in retrogression from the attitude maintained by other civilized states toward medical science, and urging every intelligent legislator to oppose so reactionary a measure.

NEW HAMPSHIRE

Personal.—Dr. Mary Dennon, Manchester, has been appointed assistant physician at the Norristown (Pa.) State Hospital for the Insane.——Dr. John H. Bates, East Rochester, has been appointed county physician for Rochester, Strafford and Barrington.

State Medical Society Meeting.—The one hundred and eighteenth annual meeting of the New Hampshire State Medical Society will be held in Concord May 13 and 14, under the presidency of Dr. John M. Gile, Hanover. The house of delegates will meet May 12 at 8:30 p. m. Among the principal papers at this meeting are those on "Surgery of the Stomach," by Dr. John B. Deaver, Philadelphia; "The Legal Liability of Physicians to Patients," by M. D. Cobleigh, Esq.; "The Development of Milk Laboratories in Regard to What Food Stuff They Can Provide, and Their Relations to the Principles of Infant Feeding," by Dr. Thomas M. Rotch, Boston; "The Fashionable Shoe as Worn on the Human Foot as Seen Through an X Ray," by Dr. Arthur F. Wheat, Manchester, and "Responsibility of the General Practitioner and the Specialist in the Prevention of Deafness," by Dr. Francis P. Emerson, Boston. The anniversary banquet will be held at the Eagle Hotel in the evening of May 14, presided over by Dr. Howard N. Kingsford, Hanover.——In connection with this meeting the annual meeting of the New Hampshire Society of Military Surgeons will be held.

NEW JERSEY

Pay Physicians for Reporting Communicable Diseases.—The board of health of East Orange, on April 15, made appropriation to cover the payment of ten cents to physicians for each case of contagious disease reported in the city, the order to be retroactive for as far as January 1.

Personal.—Dr. S. Leslie West, formerly of *Philadelphia*, has gone to Atlantic City to manage the Westmont Sanitarium, formerly the Hotel Senate, which has been especially equipped for hydrotherapy and electrotherapeutics.——Dr. Edward

Guion has been elected health officer of Atlantic City, vice Dr. Milton L. Somers, deceased.——Dr. Charles J. Larkey has been appointed deputy health officer of Bayonne.

Society Meetings.—At the annual meeting of Union County Medical Society, held in Elizabeth April 14, the following officers were elected: President, Dr. Stephen T. Quinn; vice-president, Dr. P. DuBois Bunting; secretary, Dr. John H. P. Conover; treasurer, Dr. Alvin R. Eaton, Jr., all of Elizabeth; reporter, Dr. Morton H. Pierson, Roselle, and delegate to the state society, Dr. Ellis W. Hedges, Plainfield.——Bergen County Medical Society, at its annual meeting April 13, elected Dr. Philip E. Brundage, Grantwood, president; Dr. James W. Proctor, Englewood, vice-president; Dr. Frederick S. Hallett, Hackensack, secretary, and Dr. Frank Freeland, Maywood, treasurer.——At the annual meeting of Cumberland County Medical Society, held in Bridgeton April 13, Dr. Charles W. Wilson, Vineland, was elected president; Dr. Alfred Cornwell, Bridgeton, vice-president; Dr. Amos J. Mander, Millville, secretary, and Dr. Joseph Tomlinson, Bridgeton, treasurer.——Somerset County Medical Society held its annual session in Somerville April 8, and elected Dr. Peter J. Zeglio, North Plainfield, president; Dr. Claudius R. P. Fisher, Bound Brook, vice-president; Dr. Francis E. DuBois, Plainfield, secretary; Dr. Thomas H. Flynn, Somerville, treasurer; Dr. John P. Hecht, Somerville, reporter; Dr. Henry V. Davis, North Branch, censor, and Dr. Elfie R. Graff, Somerville, delegate to the state society.

NEW YORK

Fire at Sanatorium.—Dr. W. Hays Mitchell, superintendent of the Sheldrake Springs, writes that on April 20, the power plant of the institution was destroyed by fire with a loss of $10,000. No damage was done to the main building, nor did the fire cause serious delay in caring for patients.

Gold Medal Awarded.—A special award of a gold medal and certificate in recognition of effective work done in organization of the state campaign against tuberculosis has been awarded to the State Charities Aid Association by the committee which had in charge the granting of awards by the International Congress on Tuberculosis.

Bill to Abolish Quarantine Commissioners.—This bill provides for the abolishment of the quarantine commission and the turning over of the work to Dr. Alvah H. Doty, the health officer of the Port of New York. All of the quarantine commissioners except one are out of office, either through death or otherwise. The governor has recommended this step for the past two years.

Ambulance Board Bill Held Up.—The Hoey bill, which proposes to place the ambulance service of New York under the control of a board consisting of the police and charities commissioners and the head of Bellevue and the Allied Hospitals, which was passed by the assembly and handed down to the senate, has been held up by the senate committee. The bill will be amended so that instead of the head of Bellevue and the Allied Hospitals, two private citizens shall be appointed by the mayor. The private hospitals contended that it was not just to have only one hospital represented in the membership of the board.

Resolutions Regarding Ophthalmia of the New Born.—At a meeting of the Medical Society of the County of New York, March 22, a preamble and resolutions were unanimously adopted, setting forth that ophthalmia neonatorum is the cause of blindness in 33 per cent. of the cases in all institutions; that the disease is in great part, if not entirely, preventable; that the control of preventable diseases must originate within the profession of medicine; and can succeed only by the concerted action of the entire profession and the arousing of public sentiment, endorsing and commending to the favorable consideration of the President of the United States the calling of an International Congress for the Study of Ways and Means for the Prevention of Ophthalmia Neonatorum and Blindness, and requesting that he extend an invitation to the medical profession and those interested in public health to participate in a world's congress, to be held in Washington in 1910.

Bills Passed.—The State Department of Health Sewage Disposal Bill was passed on April 20. This bill gives to the State Commissioner of Health the power of determining on investigation, whether the sewage from any city, village, town, building, steamboat or other vessel or property, which is being discharged into the waters of the state, is polluting such waters in a manner injurious to health or comfort, and, if so, to issue an order to discontinue the discharge of such sewage and adopt a method which will avoid further pollution.——The senate passed the bill making an appropriation for the purchase of the Greenvale site for the new State Hospital for the Insane. ——Assemblyman Voss' bill was also passed, which prohibits the employment of any child under the age of 16 in factories where circular, band saws, wood-shapers, wood joiners or other appliances dangerous to life or limb, like saws, belts or wheels, or poisonous acids are used; where alcoholic liquors are manufactured, bottled or packed, or where the employment of such necessitates the persons standing during his or her work. No person under the age of 16 shall be permitted to run an elevator and no male person under the age of 18 or female under 21 shall be permitted to clean or to have the supervision of machinery.

New York City

Fifty Dollars for the First Baby.—The first child born in the Jewish Maternity Hospital, East Brooklyn, was given $50 by the hospital authorities. The birth occurred April 11.

For Selling Cocain.—A Grand street druggist has been convicted of selling cocain and sentenced to imprisonment for 11 months and 29 days in the penitentiary, and to pay a fine of $500.

Personal.—Dr. Samuel W. Hamilton, of the Manhattan State Hospital, has been appointed assistant physician at the Utica State Hospital.——Dr. Max J. Russianoff, Brooklyn, has been appointed assistant physician at the Rome State Custodial Asylum.

New Home for the Blind.—The New York Institution for the Blind has purchased a site of about 51 acres for its new home in Bronxville village. It will be two years before the institution will leave its home at Ninth avenue and Thirty-fourth street to occupy the new building.

Fresh Air Excursions.—The Fresh Air Excursions to Sea Breeze Hospital will begin May 19. Dr. Edward O. Park of the New York Foundling Hospital has been appointed attending physician to the Fresh Air Department of the New York Association for Improving the Condition of the Poor, and will examine all children who take the trips.

Aid for Sea View Hospital.—The Board of Estimate and Apportionment has authorized the issue of $1,350,000 incorporate stock to provide for the erection and completion of the Sea View Hospital on Staten Island. It is stated that with this amount 1,000 beds could be provided for patients whom it is purposed to care for on Staten Island.

Neurologic Institute Planned.—The Neurological Institute of New York, backed by well-known professional men, has been incorporated, and plans are being made to alter two dwelling houses for headquarters. Dr. Joseph Collins and Dr. Joseph Fraenkel are the originators of the plan in this country. About $100,000 has been promised for the purchase of a site for this hospital and clinic, which will be the first of its kind in America.

Communicable Diseases on Steamers.—The Hamburg-American steamer, *Clevelcnd*, which arrived April 7, was detained in quarantine on account of a case of smallpox in the steerage.——The Russian steamer, *Russia*, which arrived April 9, from Libau, was detained in quarantine on account of a case of smallpox.——Information was received at the Naval Hospital, Brooklyn, April 8, that scarlet fever had broken out on board the U. S. battleship *Missouri*.

To Save the Babies.—The Bureau of Child Hygiene of the Department of Health, started its annual life-saving campaign April 15, when 141 nurses and 150 physicians began their visits and instructions to mothers. Dr. S. Josephine Baker is head of the bureau, and Dr. Walter Bensel, executive head of the system. Cards giving a few simple principles in regard to the care of infants are being distributed, and these urge that in case the baby is ill a physician be called, or the Department of Health be notified at once.

NORTH CAROLINA

Decision in Liquor Cases.—In the Federal Court of Greensboro. United States District Judge Boyd has ruled that a witness who testified that he had purchased spirituous liquors from the defendant was indictable as an aider and abetter in the violation of the law; that the violation of the law against retailing without license was a misdemeanor, and, since aiders and abetters were guilty as principals, that purchasers of liquors were equally guilty with the seller. This decision has been noted with much interest by physicians of the state, as the stringent prohibition law which took effect last January has naturally stopped the legal sales of liquors in the state excepting for medical purposes on prescriptions, and as, in a great majority of the counties, public sentiment has prevented druggists from taking out licenses to handle liquors even for medicinal purposes.

OHIO

Medical Society Organized.—Physicians of Morrow county met in Mount Gilead and organized a medical society, and elected Dr. Walter C. Bennett, president, and Dr. Roy L. Pierce, secretary, both of Mount Gilead.

Alumni Associations Merge.—The Alumni Association of the Medical College of Ohio and Miami Medical College, Cincinnati, were merged April 1. Dr. William H. Campbell, Cincinnati, was elected president, and Dr. Sidney O. Lange, Avondale, secretary.

Agree Not to Write Prescriptions for Liquor.—At a meeting of Union County Medical Society, April 13, a resolution was unanimously adopted agreeing not to write prescriptions for whisky except at the bedside of patients, and then only when absolutely indicated.

Personal.—Dr. George W. Crile, Cleveland, read a paper on "Surgical Anemia and Resuscitation" before the Detroit Academy of Medicine, April 13.——Dr. T. Addison McCann, Dayton, has been appointed a member of the State Board of Medical Examination and Registration.——Dr. Simon P. Wise, Millersburg, has been appointed a member of the board of trustees of the Ohio Tuberculosis Sanatorium, Mount Vernon.

For Tuberculosis Sufferers.—Butler county is to have a hospital for the treatment of tuberculosis. The old stone building on the grounds of the county infirmary has been selected for this purpose.——The Dayton Tuberculosis Society is making strenuous effort to raise funds by subscription to meet the expenses of the new Brookside Sanatorium for a year. The institution opened for the reception of patients April 25, and formal dedication was to be May 1.——The Antituberculosis League of Cincinnati has been incorporated by Drs. Samuel E. Allen and John M. Withrow and Messrs. C. M. Hubbard, Louis L. Levi and E. L. Hitchins.

PENNSYLVANIA

Leg Not Refractured.—Dr. John J. Bilheimer, Priceburg, writes that the report in The Journal, April 17, regarding his condition, was incorrect. Dr. Bilheimer reports that his leg is in good condition, strong and straight, and of equal length with its fellow.

Aid for Hospitals.—Mrs. J. C. Blair has given $50,000 for the erection and partial equipment of the J. C. Blair Memorial Hospital in Huntingdon, and an additional $50,000 for its partial endowment.——The will of the late Dr. Martin H. Boye bequeaths $12,000 each to the Allentown Hospital and St. Luke's Hospital, South Bethlehem.——The will of the late William P. Henszey, Philadelphia, bequeaths $10,000 each to the Hospital of the Good Shepard; Episcopal Hospital; Orthopedic Hospital; Presbyterian Hospital; Woman's Hospital; Medico-Chirurgical Hospital; Cathcart Home for Incurables; Wills Eye Hospital and White Haven Sanitarium.——The will of the late Emilia A. Krause bequeaths the residual of an estate valued at almost $40,000, to Christ Church Hospital, Philadelphia.

Philadelphia

Hospital Dedicated.—The Frederick Douglas Hospital and Training School for Nurses, an institution founded by the colored physicians of this city and erected at a cost of $100,000, was dedicated with appropriate ceremonies, April 22. The institution was organized by Dr. Nathan F. Mossell, who has been elected its medical director.

Memorial Tablet Erected.—A memorial tablet has been placed in the main hallway of the German Hospital, Philadelphia, to commemorate the bestowment of an endowment fund of $5,000 by the parents of the late Dr. Sorden McClure, first lieutenant and assistant surgeon N. G. Pa., assigned to duty with the First Infantry, to furnish a free bed in the hospital for the benefit of soldiers of his regiment.

Personal.—Drs. F. Hurst Maier and P. Brooks Bland have been elected gynecologists to St. Joseph's Hospital.——Dr. J. Morton Boice has been elected gynecologist to the out-patient department of St. Joseph's Hospital.——Dr. J. Norman Henry sailed for Europe April 23.——Dr. Samuel G. Dixon has been elected vice-president of the Pennsylvania Society for the Prevention of Tuberculosis.——Dr. William W. Keen has been elected president of the Contemporary Club.

Testimonial Dinner to Henry Phipps.—With the unanimous approval of many of the city's most prominent citizens, and with Mayor Reyburn representing the public at large, it was decided, on April 22, to give a testimonial dinner on May 12 in this city, to Mr. Henry Phipps, the founder of the Phipps Institute for the Study and Treatment of Tuberculosis. The dinner will also be made the occasion for presentation to Mr. Phipps of the Altohoff Gold Medal, which he was awarded by the International Congress on Tuberculosis. The following committee is in charge of the arrangements: Drs. Lawrence F. Flick, Joseph F. Walsh, Joseph S. Neff, Charles J. Hatfield, Martin G. Brumbaugh and Mr. E. T. Stotsberry.

TENNESSEE

Personal.—Dr. Thomas J. Happel, Trenton, who has been seriously ill for many weeks, is reported as slightly improving.——Dr. Charles A. Abernethy, Pulaski, has been chosen by the State Board of Medical Examiners to fill the vacancy in the secretaryship caused by the illness of Dr. Happel.

Commencements.—The annual commencement exercises of the Chattanooga Medical College were held April 26, when a class of 24 was graduated. Hon. George W. Ochs, Philadelphia, delivered the principal address.——The commencement exercises of Meharry Medical College, the Medical Department of Walden University, Nashville, were held April 8, when a class of 41 was graduated. The salutatory address was given by Dr. J. G. Shaw, Mississippi; the medical valedictory by Dr. T. S. Powell of Tennessee; the doctorate address was delivered by Booker T. Washington, and the charge to the graduating class by Dr. J. W. E. Bowen, Atlanta, Ga., on the "Sacredness of the Profession."

VIRGINIA

Smallpox Warning.—A special bulletin on smallpox has been issued by the State Board of Health, which gives the history of the disease in the state and urges general vaccination in the effort to expel the disease from Virginia.

Personal.—Major James W. Henson, Richmond, surgeon Virginia Volunteer Militia, has resigned.——Dr. Samuel A. Hinton, Petersburg, has been re-elected councilor from the Fourth District to the Medical Society of Virginia.——Dr. May T. Jones, West Point, has been appointed assistant physician at the Eastern State Hospital, Williamsburg.——Dr. Sylvester D. Craig, Alexandria, has succeeded Dr. Fadely, resigned, as assistant surgeon in the National Soldiers' Home Hospital, Newport.

Preventive Medicine.—The University of Virginia has announced a summer course for the training of those interested in subjects connected with the preservation and improvement of public health, to begin June 14 and continue until July 24, especially for health officers, medical inspectors and similar public officers. It will also inaugurate in September a four years' course for the training of sanitary engineers. A course of lectures will also be given on selected topics of public health, some of which are intended especially for public health students, while others are open to all students in the university. The six weeks' course includes chemistry, bacteriology, medicine, hygiene and epidemiology.

GENERAL NEWS AND COMMENT

Esperanto Authorized for International Medical Congress.—The last Pan-American Scientific Congress approved Esperanto as a neutral international language and recommended it for an important place in the programs of congresses among the various American governments.——Esperanto has been officially accepted by the forthcoming International Medical Congress at Budapest, as a language in which communications may be made and discussed.

Promotions and Appointments.—At the annual meeting of Directors of the Rockefeller Institute for Medical Research, New York City, April 10, the following promotions and appointments were made: Associate members—Drs. John Auer, physiology; Hideyo Noguchi, pathology; Alexis Carrel, surgery; associate, George W. Heimrod, chemistry. Assistants—Martha Wolstein and Richard V. Lamar, pathology; A. O. Shaklee, physiology, and Gustave M. Meyer, chemistry. Fellows—M. T. Burrows, pathology, and Paul F. Clark, bacteriology.

Railway Surgeons Meet.—At the fourteenth annual meeting of the Association of Surgeons of the Southern Railway, held in Jacksonville, Fla., April 6 and 7, the following officers were elected: President, Dr. Charles H. Starkel, Belleville, Ill.; vice-presidents. Drs. Jay H. Durkee, Jacksonville, Fla., and Hugh W. Blair, Sheffield, Ala.; secretary-treasurer, Dr. Jacob U. Ray, Woodstock, Ala., and member of the executive committee, Dr. George H. Stubbs, Birmingham, Ala. Dr. William A. Applegate, chief surgeon of the railway, Washington, D. C., was presented with a watch by the association.

Civil Service Examination.—The United States Civil Service Commission announces an examination, June 16, at a number of cities throughout the United States, to secure male medical internes in the Government Hospital for the Insane, Washington, D. C., at $600 per *annum*, each with maintenance, and for similar vacancies as they may occur. Applicants must be graduates of reputable medical colleges not more than two years prior to the examination, and application should be made either to the United States Civil Service Commission, Washington, D. C., or to the secretary of the local board of examiners at any place at which the examination is to be held.

Philadelphia Physicians' Business Journal.—This is a new periodical, of which the first issue has come to hand. It aims to care for the economic interests of the physician, individually and collectively. The importance of the organization of business bureaus is insisted on in order that physicians may obtain by solidarity that consideration for their rights which the individualism of the past has lost to them. The journal, which is under the editorship of Dr. P. B. Thatcher, with Drs. A. M. Eaton, A. B. Hirsh, J. A. Broadfield, H. B. Ingle and N. M. Brinkerhoff as associate editors, consists at present of eight pages, but will be gradually increased. This first issue contains an Appeal for the Formation of Additional Physicians' Business Associations by Dr. A. M. Eaton, and articles on "The Present Status of the Profession," by Dr. P. B. Thatcher, and "Improvement in Professional Troubles," by Dr. A. B. Hirsh, besides notes on organization matters.

The Carroll Fund.—The following subscriptions have been received since the last report:

Previously reported	3,073.95
Adams County Medical Society, Quincy, Ill	$ 15,35
Dr. C. Lincoln Furbush, Philadelphia	5.00
Mississippi State Medical Society, Vicksburg	150.00
Members of Mississippi State Medical Society	135.00
Dr. H. V. Ogden, Milwaukee, Wis	5.00
Dr. C. L. Hagen Burger, Boston	3.00
A physician of La Aurora, Puebla, Mexico	1.00
The Rapides Parish Med. Society, Alexandria, La	10.00
Dr. J. T. Joseph Bird, New York City	1.00
Dr. G. Victor Janvier, Royersford, Pa	1.00
Dr. O. C. Strickler, New Ulm, Minn	5.00
Dr. Frank S. Mathews, New York City	5.00
Mr. T. G. Dabney, chief engineer Yazoo-Miss. Delta Levee District, Clarksdale, Miss	5.00
Dr. J. M. A [illegible]	5.00
Dr. Joseph [illegible] Mich	5.00
Dr. E. B. Q [illegible]	1.00
Dr. Albert [illegible] ty	5.00
Dr. P. J. H [illegible]	10.00
Dr. E. C. Ellett, Memphis, Tenn	5.00
	$ 372.35
Total amount subscribed	$3,446.30

FOREIGN

Medical Members of the New Italian Parliament.—Twenty-five of the former medical members were re-elected and nine new physicians were elected, but ten others failed of re-election, and ten other physicians who were candidates for legislative positions were beaten at the polls. The latter list includes Bossi of dilator fame.

Prize for Work on Dementia Præcox.—The Royal Academy of Medicine of Turin offers a prize of $120 (600 lire) for the best work on *dementia præcox*, written in French, Italian or Latin, Ms. or published since 1905, and entered in competition for the Bonacossa prize before Dec. 31, 1909. Address the secretary, F. Abba, via Po, 18, Turin, Italy.

International Cancer Research Conference.—During the German Surgical Congress at Berlin last week, the council of the International Cancer Research Association held a meeting. The main subjects discussed were the best means for compiling international cancer and operative statistics on a uniform basis, the organization of the next international anticancer conference and allied questions.

More Medical Victims of Exanthematous Typhus.—The last foreign mail brings word of the death from epidemic typhus of an interne at Madrid, the fourth victim among the hospital internes during the present epidemic. The two last issues of the *St. Petersburg. med. Wochenschrift* also give obituary notices of five Russian physicians who succumbed during the two weeks to typhus professionally acquired, all residing in different provinces.

Northland Congress for Internal Medicine.—The sixth *Nordiska Kongressen för invärtes Medicin* is to meet this year at Skagen in Denmark in the last half of June, with K. Haussen of Bergen in the chair. The diagnosis of incipient pulmonary tuberculosis and functional tests of various organs are to be the main subjects discussed. The first is to be introduced by Tillman and Saugman, the second by Schaumann of Helsingfors, O. Scheel of Christiania, Madsen of Bergen, and V. Scheel of Copenhagen. The address of the secretary of the congress is Prosektor Scheel, Kommunehospitalet, Copenhagen, Denmark.

Northland Surgical Congress.—The eighth congress of the *Nordisk kirurgisk Förening* is to be held this year at Helsingfors, August 19 to 21. J. Berg and G. Forssell deliver the addresses on the first topic, "Modern Methods of Treating Cancer." E. Rode and V. Albeck speak on the second topic, "Indications for Interruption of Pregnancy in Serious Morbid Conditions, Especially in Tuberculosis." The third subject announced for discussion, "Treatment of Coxitis," will be introduced by Sinding-Larsen and H. von Bonsdorff. Prof. A. Krogius of Helsingfors is to preside at the congress and J. Borelius of Lund is the general secretary.

Semicentennial of St. Petersburg Medical Society and Russian Medical Literature.—The *Verein St. Petersburger Aerzte* celebrated March 31 the fiftieth anniversary of its foundation. The *St. Petersburg. med. Wochenschrift* has been its official organ for many years, as also of all other German-speaking medical associations in Russia. This journal is always published in German, and a very valuable feature is a monthly supplement devoted to current Russian medical literature. It lists in the course of the year the contents of twenty-two of the leading Russian medical journals, with brief summaries of the important articles, all in German. The more important articles in the Russian medical journals are almost invariably published simultaneously also in some German or French journal.

German Society for Repression of Venereal Diseases.—The annual meeting of this society was held at Berlin in February, and the secretary stated in his report that the warning circular for girls and women and others for parents and for men had been recently rewritten, and that arrangements had been made to have prophylactic lectures delivered this year in the universities and postgraduate schools. Graser of the German Marine Hospital at Naples obtained the prize offered for the best prophylactic pamphlet for distribution among soldiers and sailors. It is for sale at bookstores for 5 cents. It was announced with approving comment that the Bavarian government has forbidden the holding of lectures on sexual enlightenment by medical men or anyone unless endorsed by some medical or hygienic association. The meeting was mainly devoted to discussion of the sanitary control of prostitutes.

LONDON LETTER

(From Our Regular Correspondent)

London, April 16, 1909.

Dentists Object to be Prohibited from Administering Anesthetics

As stated in previous letters, attention has been directed to the number of deaths which occur under anesthetics, and further legislation for the protection of the public is demanded. A bill has been introduced in the House of Commons prohibiting the administration of any general anesthetic by other than a legally qualified medical practitioner and also rendering theoretical and practical instruction in administration necessary for qualification. The executive of the British Dental Association has protested against dentists being deprived of the right to administer anesthetics.

Sleeping Sickness; Recent Discoveries

Important discoveries with regard to sleeping sickness have been made by Dr. Kinghorn and Mr. Montgomery in Rhodesia and Nyassaland of the expedition of the Liverpool School of Tropical Medicine. They have shown that the disease may be due to any one of a large number of trypanosomes and that these may be carried by flies other than tsetse. In northern Rhodesia preventive measures have been successful. The country has been divided into zones and all the known cases segregated. The disease has in consequence considerably diminished.

Lectures on Medical Ethics

A general practitioner has made a novel suggestion in *St. Bartholomew's Hospital Journal* that one or two lectures should be given in the medical school at the end of each session on medical ethics and etiquette to those students who have finished their course and are about to qualify. He proposes that these lectures should be given by some well-known general practitioner of high standing and long experience and not by a consultant on the hospital staff whose career has not enabled him to gain experience of the petty annoyances and of the temptations to diverge from the straight path, which are so often cropping up in the life of the general practitioner. A recommendation has been sent up from the council of the student's union of the hospital asking the medical school committee to arrange for such lectures.

The Royal College of Surgeons

The Jacksonian prize has been awarded to Mr. J. P. Lockhart Mummery, F.R.C.S., for his essay on "The Pathology and Treatment of Those Conditions and Diseases of the Colon Which Are Relievable by Operative Measures." The prize subject for the year 1910 will be "Tuberculous Disease of the Urinary Bladder and Male Genital Organs." Sir Jonathan Hutchinson has been appointed the delegate of the college to the University of Geneva on the occasion of the three hundred and fiftieth anniversary of its foundation in July next. Dr. R. T. Leiper of the London School of Tropical Medicine, has been asked to undertake the revision and renovation of the collection of entozoa in the college museum.

The Children's Act

The present government is distinguished above all previous ones by its solicitude for children, the outcome of the humanitarian movement of the times. The Children's Act which has just come into force, and has aptly been called the "Children's Charter," is probably the most complete measure for the protection of infant and child life which has ever been devised. Every provision possible seems to have been included. A great advance has been made on the Infant Life Protection Act of 1897, which rendered foster parents who received more than one infant under the age of 5 years subject to inspection. The present act renders subject to inspection every infant who is placed out to nurse for more than 48 hours for fee or reward. Notification of the fact must be made to the local health authorities, and in case of change of residence, removal or death of the infant this must also be reported within 48 hours. The coroner must be informed within 24 hours of the death of an infant under such circumstances. It is common practice of the poor to insure the lives of their children for small sums, in order to defray the expenses in case of death. In connection with this practice, some scandals have arisen from time to time. When a child died under circumstances of poverty and neglect, it has often been alleged that the prospect of being paid the insurance money prevented it from receiving due care. The present act forbids the insurance of all such children in charge of foster parents. The second part of the act deals with the prevention of cruelty to children and young persons. Failure to provide adequate food, clothing, medical aid or lodging is to be deemed neglect. Provisions are made to prevent the frequent tragedies of overlying, burning and scalding of children. It is also an offense to give a child under the age of 5 years any intoxicating liquors, except on the order of a physician, or in case of sickness or apprehended sickness or other urgent cause.

Death of Another Investigator of Sleeping Sickness

Capt. F. H. Hardy, of the Army Medical Corps, a former student of Guy's Hospital, has contracted a fatal attack of sleeping sickness while investigating the disease and endeavoring to stop its spread among the natives of Nyassaland. When he was found to be infected it was decided that he should come home for treatment, but he died on the way, at Aden. His fate recalls that of Lieut. F. Tulloch, another officer of the Army Medical Corps, who contracted the disease a few years ago in central Africa and came home to die.

A Physician Who Risked His Life for a Patient

The heroic act of sucking a tracheotomy tube has once again been performed. A boy was brought to the East Ham Hospital almost asphyxiated by laryngeal obstruction from diphtheria. Dr. Sowden, health officer of the district, at once performed tracheotomy and as the breathing was not relieved he sucked the membrane out of the tube and saved the patient's life. A week has now passed and the physician has shown no sign of the disease.

The Editorship of The Lancet

Dr. Squire Sprigge, who has been chief of the editorial staff of the *Lancet* for fifteen years, has received the well-merited promotion to the post of editor. He is the author of the "Life and Times of Thomas Wakley," an interesting and ably written biography of the founder of the *Lancet*, and a valuable contribution to the history of the early part of the nineteenth century, for the first Wakley was a public man, a member of Parliament, a reformer and a stout political fighter. The long connection of the Wakley family with the editorship of the journal is severed, but it is in the best and most appropriate hands and its position and traditions are certain to be maintained unimpaired.

PARIS LETTER

(From Our Regular Correspondent)

Paris, April 15, 1909.

The Abuse of Free Hospital Attendance

The decree concerning the organization of the Public Assistance in Paris formally recognizes the principle that the hospital must be reserved for the poor: "The sick entered in the list of indigents or recognized as being necessitous alone have a right to gratuitous medical aid, save in cases of emergency." This principle, however, is violated every day. If one examines the statistics of mortality for Paris and in the Department of the Seine, one sees that in 1905, out of 53,220 deaths, 25,221 persons died in the hospitals, and, consequently had been cared for at the public expense. This death list represented, then, in 1905, 48 per cent. of the general mortality, while in 1880 it did not exceed 29 per cent. This increase in hospital attendance is due, not to an increase in pauperism, but to the fact that the betterment of the hospitals has had the effect of dissipating the repugnance formerly felt for the hospital by people in easy circumstances.

The medical profession complains with reason of the scandalous abuse committed daily by people of means taking the place of the poor. Dr. Lermoyez, mentioned recently as coming to his hospital clinic, the proprietors of a large hotel and a hairdressing establishment, a provincial lawyer, a manufacturer disguised as a workman, a dealer in art bronzes disguised as a delivery man, a provincial lady of independent means who had borrowed the dress of a maid, etc. Dr. Thierry has seen in his hospital service a merchant who brought his daughter daily in his carriage, a jockey who earned, according to his own statement, 25,000 francs a year, and a cashier of a large commercial house, earning 20,000 francs a year. For some time since attention has been more and more directed to this state of affairs, prejudicial alike to the interests of the real poor and to those of the physician, who thus sees diminishing his paying *clientèle*. With a view to remedying it, M. Mesureur, director of the Public Assistance, has decided to impose a fee of 75 centimes for each attendance, a measure unfavorably regarded by the medical body from every point of view; for if such attendance is rendered to the indigent, it ought to be entirely gratuitous; but if to one whose circumstances permit him to pay therefor, then a fee of 75 centimes is ridiculous. M. Mesureur has, moreover, had posted in the hospitals a notice pointing out that medical attention is exclusively reserved for indigent or necessitous persons domiciled in Paris or in the Department of the Seine. The administration of Public Assistance reserves the right of investigating the subject of domicile, to verify the truth of the statements made and, if necessary, to recover fees for consultation from every person whose condition is neither indigent nor necessitous. Finally, in consequence of the steps taken by the president of the general council of medical societies of the *arrondissement*, and by the general secretary of the medical syndicate of Paris, Mr. Mesureur has decided to establish a commission to investigate the means of preventing admission to the free hospitals of the *Assistance Publique* of patients sufficiently well off to pay their own medical fees. This commission will consist, not only of members of the administration of Public Assistance, but also of representatives of the different professional bodies, such as the Syndicate of Physicians of the Department of the Seine, the Medical Syndicate of Paris, etc.

The Antitobacco Society

The subject set by the Society Against the Abuse of Tobacco this year for competition is as follows: "Report of Observations Showing That Smokers Are More Subject Than

Others to Cancer." There will also be made a large number of awards to physicians for works not directly answering the question, but dealing with the evil consequences of the abuse of tobacco. Essays should be addressed to Dr. Georges Petit, 12 Rue Jacob, Paris.

VIENNA LETTER

(From Our Regular Correspondent)

Vienna, April 15, 1909.

The Summer Term at the University of Vienna

The summer term has just begun at the University of Vienna. The official catalogue enumerates no less than 406 different classes, courses and lectures (under 35 ordinary, 65 extraordinary professors and 167 privat-docents and assistants) for the summer semester, which lasts from the middle of April to the middle of July. The number of lectures has decreased a little in comparison with the summer term of 1908, but the number of classes is larger (406 against 380). They will include not only all the regular lectures on the cardinal branches (surgery, medicine, ophthalmology, pediatrics, gynecology, dermatology, morbid anatomy) by the ordinary professors, but also a vast number of special lectures and courses, many of which (especially postgraduate classes, or classes in English, French or Russian) are to be adapted to the needs of students applying to the lecturer. Vienna, it must be remembered, is one of the centers of European medical study. No less than 385 foreign graduates matriculated at the university during the last winter term, about 60 per cent. of them being English and American physicians. There are classes in English on special subjects (otology, rhino-laryngology, ophthalmology, morbid anatomy, bacteriology, atypical surgery). The influential Anglo-American Medical Association of Vienna has taken the matter in hand and oversees the classes with the best possible results to both students and lecturers.

An important point is that anyone wishing to get as much as possible out of his stay in this city should come in the summer. Many professors are out of town in July and August, and the enormous material in the hospitals may be used much better by the man who wishes to do it than if the professor were obliged to deliver his daily lecture. In fact, during the summer vacations much independent work may be done by those competent to do it. Those who have not a great deal of knowledge or experience will do well to come here early in winter; having attained enough proficiency, they will readily be allowed in the clinics to work as much as they like during the summer.

The average fee for the classes, roughly speaking, comes to about $10 for four weeks; some cost less, some a trifle more. Generally the number of students is limited to ten or fifteen, so that each may obtain the best results.

Protection of Infants in Vienna

The idea of combating the appalling mortality among infants by protecting them from bad food and ignorance has at last gained a firm hold in this city, thanks to the intrepid perseverance of a few men with open minds and pockets. The report of the *Säuglingsschutz* (Society for the Protection of Infants) shows success, and proves that the method adopted is a correct one; namely, encouragement of natural feeding with the mother's milk, instruction of the mother in regard to the nature and duration of wet-nursing, and regular inspection and control of the children. It has been possible to bring down the mortality among the controlled infants to 100 per thousand, against 190 per thousand in Vienna generally, and at least 210 per thousand among the inhabitants of the poor districts, whence the controlled children are brought to the society.

On the other hand, the absolute figures of the good work accomplished are insignificant in comparison with the achievements abroad. First, large funds are required; next, strict instruction of the coming generation of physicians in regard to the cardinal principles of the care of infants is necessary. Then, too, the midwives, many of whom do not favor breast-feeding, need enlightenment.

A very useful step in this direction would be the institution of mothers' schools, for girls and mothers. Such a school has been founded in Vienna with the assiduous aid of Prof. von Escherich; and it will no doubt help to re-educate the female population in its maternal duties. Such schools are also planned in connection with factories and workshops.

Another important movement is also under way in medical circles. The emperor's jubilee in 1908 has caused large sums to be devoted, acording to the old emperor's wish, to the welfare of the child. There is a movement to use these large funds for hospitals and orphans' institutes. Von Escherich and many other prominent physicians, however, recommend the employment of these sums for the *Säuglingsschutz* for the prevention of mortality among infants and for the support of poor mothers after childbirth, provided they feed their babies at the breast. As the fund amounts to several hundreds of thousands, much could be done with it in this direction, and there is every reason for hope that this end will be attained.

BERLIN LETTER

(From Our Regular Correspondent)

Berlin, April 7, 1909.

Tipping by Specialists

In consequence of the accusations made in the medical tip affair, Professor Posner offered his resignation from the editorial staff of the *Berliner klinische Wochenschrift*, but the management refused to accept it, and this refusal was sanctioned by the representatives of the medical press association. It seems that while the representatives of the association did not intend their action as a complete vindication of Professor Posner, they thought the matter was not sufficiently clear to make his resignation necessary. Professor Posner has already resigned the presidency of the Deutsche Gesellschaft für Urologie.

Union of Otology and Laryngology

It is proposed to unite these two specialties, but many of the specialists object. To the outsider it seems a small matter. For while it is to the interest of the student that these subjects be well taught, it can make little difference whether they are taught by one man or two. In large cities where specialists are overworked, independence will naturally be favored, but in the smaller universities union will be more convenient.

New Imperial Insurance Law

A new bill for the codification of the insurance legislation has just been printed. Insurance for sickness is extended to agricultural and forestry laborers, messengers and domestic employés. The right of free choice of physician has not been confirmed by law, as was hoped by many physicians. A more detailed consideration of this legislation will be given in a later number.

Work of the School Physicians

During 1907-08, 39,666 pupils in the Berlin public schools (about 17.5 per cent.) were under medical supervision; 6,054 received supervision because of insufficient vitality, 7,334 on account of diseases of the eye, 3,453 on account of affections of the ear, 2,801 on account of curvature of the spine, 2,990 on account of diseases of the nose and throat, 2,775 on account of diseases of the heart, 2,062 on account of hernia, 1,818 on account of scrofula, 1,740 on account of tuberculosis of the lungs, 1,658 for nervous diseases, 1,450 on account of disorders of speech, 1,221 for rickets, 746 for imperfect mental development, 391 for epilepsy, 691 for diseases of the skin, 841 for diseases of the lungs, 381 for tuberculosis of the bones, 411 for lack of education, 177 for diseases of the kidneys and 797 for other diseases.

Operation Punishable as a Bodily Injury

In 1894 the Imperial Court, the highest court in Germany, decided that it constituted an illegal and criminal bodily injury if a physician performed an operation without the consent of the patient or his legal representative, and in such cases it was immaterial whether the purpose or even the results of this bodily injury were shown to be rational and beneficial to the injured person. A short time ago the court in a similar case confirmed the former decision in spite of the fact that meanwhile serious objections had been raised against this opinion both by jurists and physicians. According to this, surgeons must be very careful in their procedure, if they do not wish to come in conflict with the courts and to pay for their good intentions and the success of their art by fines. They can feel absolved from the duty of asking the consent of patients or their relatives before undertaking an operation, only in cases of unconsciousness or insanity or when there is danger in delay; moreover, there is the danger that many patients will suffer injury on account of this judicial opinion because an operation will not be undertaken at the right time in consequence of lack of consent or will be entirely omitted.

Association News

THE COMMERCIAL EXHIBIT

(Concluded from page 1427)

in window-tent construction, will be on exhibition The standard tent put out by the company has the endorsement of the National Association for the Prevention of Tuberculosis, and has been very generally adopted by the medical profession Visitors will no doubt be attracted by the complete line of tent ventilators, paper blankets and "everything for fresh air with comfort," which will be shown.

Henry K. Wampole & Company, Philadelphia. Spaces 16 and 17.—This company intends to display to physicians the ability of a manufacturing concern to produce on a large scale products that combine therapeutic efficiency with pharmaceutical elegance It will comprise pulverous pills, compressed tablets, fluidextracts, elixirs, effervescent salts, capsules etc. Special attention will be directed to bismuth hydrate compound and glycerodine, as preparations illustrating the firm's ability to produce elegant and at the same time efficient products for the physician.

Wilmot Castle Company, Rochester, N. Y. Space 57.—Its latest designs in sterilizers and sterilizing outfits will be exhibited by this firm, including pressure and non-pressure sterilizers; the efficiency of both processes will be demonstrated. Physicians will thus be able to determine both what kind of sterilizers are best adapted for their uses and also the various methods of heating same. In this connection special attention will be given to electric heating.

William Wood & Company, New York City. Space 64.—This firm will present an exhibit arranged on the same general lines as last year. Advance proofs of many of the new illustrations for the forthcoming edition of Cunningham's "Anatomy" will interest students and teachers New editions of such standard works as Dana's "Nervous Diseases," Ziegler's "Pathology," Baruch's "Hydrotherapy," Cabot's "Physical Diagnosis," and Chapin's "Infant Feeding" will be shown; together with the new "Embryology" by Bailey and Miller, McKay's new "Operations on the Uterus, Perineum and Round Ligaments," Norman Kerr's "Operative Midwifery." Calmette's "Venom's," etc., and many others.

Hotel Headquarters

The following list of hotel headquarters is repeated *from the* issue of April 3, in which it first appeared:

General Headquarters	Marlborough-Blenheim
Practice of Medicine	Hotel Dennis
Surgery and Anatomy	Hotel Chalfonte
Obstetrics and Diseases of Women	Haddon Hall
Diseases of Children	Hotel Traymore
Nervous and Mental Diseases	Hotel Brighton
Hygiene and Sanitary Science	Hotel Seaside
Pharmacology and Therapeutics	Hotel Chelsea
Ophthalmology	Hotel Rudolf
Laryngology and Otology	Hotel St. Charles
Cutaneous Medicine and Surgery	Hotel Shelburne
Pathology and Physiology	Hotel Windsor
Stomatology	Hotel Royal Palace

Correspondence

Vaccine Therapy of Colds

To the Editor:—In the newspapers recently, there have been several more or less sensational articles in regard to my alleged discovery of the germ of cold, or a new serum or antitoxin for colds.

The facts are as follows: I have *not discovered* any new germ of colds, or any antitoxin, or antiserum, nor have I made any attempt to do so I have made some experiments *on* vaccination for acute coryza, following out in a measure recommendations made by Dr. R. W. Allen in an article which appeared in the Medical Record, Dec. 19, 1908. Dr. Allen mentions four organisms and gives the dosage used for cure as well as for immunization. He also says that when there is doubt as to the organism, he uses a vaccine containing several of the organisms mentioned.

My method is to use an autogenic vaccine prepared as follows: "Blow" the nose thoroughly to clean out contaminating organisms. Swab out each nostril with a diphtheria swab and inoculate two (to guard against possible loss) agar slant tubes Incubate twenty four hours. Prepare a vaccine in the usual way from the growth and inject one cubic centimeter (less for children) hypodermatically. The results in the few cases treated by me are most surprising, the colds in each instance disappearing in twenty-four hours In one experiment, the immunity has apparently lasted nearly two months. One patient is not "subject to colds," but the others are, almost continually during the winter, and I have never seen anything act so satisfactorily as this method. I intend to use it whenever opportunity offers.

These three experiments prove nothing, but they demonstrate the advisability of continuing the method. Should further experiment confirm its value, there is no reason why the physician without laboratory facilities should not use his diphtheria swabs and send them to a laboratory where the vaccine could be prepared and sent to him for injection, and thus, as one of my medical friends said, "restore the treatment of colds from the drugstore to the physician, where it belongs." Or the practitioner could use the old method and incubate his cultures in a "pocket in his undershirt," or "held with adhesive strips in the axilla."

Dr. Allen advises using his vaccine "at the onset of the attack, or not until the third day, as considerable constitutional disturbance may result if used in the interval." In one of my cases decided constitutional disturbance resulted. Twenty-four hours after "catching cold" the vaccine was ready and injected About five hours later there was a chill followed by fever, dryness of skin and throat, headache, *pains in* the joints and general malaise. These symptoms were rather severe for three hours, then after a short nap of about half an hour, largely disappeared, though the headache persisted slightly until next morning. The point of inoculation was decidedly tender the first day and somewhat so the second. The cold was gone in less than a day following inoculation.

The number of bacteria injected has not been estimated, nor has the opsonic index been determined. One injection has been sufficient in each of the three experiments.

I should consider it a favor if anyone who tries this method would communicate his results to me.

Charles B Morrey, Columbus, Ohio.
Professor of Bacteriology, Ohio State University.

An Appeal for Information on Alcohol in Beverages and in Medicines

To the Editor:—As superintendent of the Department of Medical Temperance of the National Woman's Christian Temperance Union, I have been chosen as one of the representatives of the United States Government to the International Congress on Alcoholism to be held in London in July. It has also been arranged that I shall read a paper in the scientific section. All I expect to do with such a paper is to tell what is *being* done among American medical men in regard to investigations of alcohol, and something of the present *trend* in the medical use of alcoholic liquors As I wish to present a fair and truthful picture of the present attitude of American physicians to the alcohol question, I ask that physicians reading this will kindly send me a brief statement of their personal opinion of the use of alcoholic liquors, both as beverages and in the treatment of disease. Professors in medical schools, or health officers, or physicians *practicing in* connection with large hospitals please state that they are such.

As some who read this may not know what the work of the medical temperance department of the W. C. T. U. is, I may say that this department teaches women to avoid self-drugging, and shows the dangers of resorting to alcoholic liquors for family ills. The work is based entirely on the teachings of eminent physicians The department began the public agitation against fraudulent "patent medicines," and is keeping it up, for during the past year I have personally sent out over 20,000 copies of the "Great American Fraud," besides tens of thousands of my own leaflets on that subject. Physicians who understand my work are much interested in it, and many have helped me. May I not hope that a great avalanche of postal cards or letters will reach me in response to this appeal? Will it be fair for me to assume that, if only a few answer, only a few are interested in the questions to be discussed at the Congress on Alcoholism?

(Mrs.) Martha M. Allen, Marcellus, N. Y.

Eye Bandage and Priority of Description

To the Editor:—In reply to Dr. Friedenwald's letter in The Journal, April 10, page 1196, I wish to state that I have used the eye bandage for ten years, and have failed to find it described or illustrated in the text-books or journals at my disposal. For that reason I published the article. I would not knowingly claim anything belonging to another.

G. A. Morley, Crookston, Minn.

Queries and Minor Notes

Anonymous Communications will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed.

WORMS IN EGGS

To the Editor:—Some time ago one of my patients opened a hen's egg, in the white of which was a small worm about one-twelfth of an inch thick and one and one-half inches long. The egg and the worm were given to me, but were accidentally destroyed. In the *Medical World*, February, 1909, page 62, I find recorded a similar observation. Can you give me any further information on this subject?

Wesley C. Stick, Hanover, Pa.

Answer.—It occasionally happens that intestinal parasites wander from the intestines into the female genital ducts. This is a particularly easy matter in the case of birds, where the intestine and oviduct discharge into a common genitointestinal cloaca. From the brief description of the parasite it is probable that it was a nematode, possibly the *Heterakis perspicillum* (Rudolphi, 1803). This worm lives in the small intestine of fowls, and on wandering into the oviduct may become surrounded by albumin during the formation of the egg, but before the formation of the eggshell. It has been observed in the egg on a number of occasions. The worm has never been reported as a parasite of man and its size would, generally, lead to its discovery before being swallowed. It has, therefore, no practical medical importance.

Occasionally a rather closely allied parasite of man, the common pin worm (*Oxyuris vermicularis*) wanders from the rectum through the anus, and after entering the vagina, makes its way further up the genital tract. Occasionally, too, certain trematodes belonging to the genus *Prosthogonimus* (as *P. ovatus*) are found in the hen's egg. Such cases have been reported by Diesing in 1850, Landois in 1882, Linton in 1887, Spencer in 1889 and Ralliet in 1893. These parasites inhabit the bursa fabricii whence they enter the oviduct and are easily included in the albumin before the eggshell is formed.

THE BLACK MOTOR CAR IN THE AUTOMOBILE NUMBER

The Journal has issued three Automobile Numbers, in 1906, 1908 and 1909. The contributions from physicians published therein have been accepted from the authors as fair and unprejudiced testimonies and very little complaint of any unfairness has come to The Journal. In the third number, however, March 6, 1909, there was only one contribution referring to the cars made by the Black Manufacturing Company, of 124 E. Ohio St., Chicago. The author of that letter had had unfortunate experience with his car, and his letter was a most unfavorable criticism. The publication of this letter caused a great many protests to be sent to The Journal from satisfied owners of Black automobiles. Instead of selecting any one of these letters for publication, we will merely say that they are from physicians in various parts of the country who have tested the Black automobile in country practice, over all kinds of roads, including sand and mud. These writers speak as favorably of their cars as do those who use other medium-priced cars. It seems evident, therefore, that it is unfair to judge the products of this company by the testimony of one man whose experience had been unsatisfactory.

MOLDS, CASTS AND MODELS

To the Editor:—The Journal has made me disgruntled by allowing contributors to speak of all kinds of splints, molds and molded splints indiscriminately as "casts." The iron-worker knows the difference between a mold and a cast, and the artist distinguishes between his models, molds and casts. It is rather irritating, therefore, to find our medical brothers less particular. A recent article reached the point of absurdity. Five times the word "cast" was used when molds or molded splints were meant; and a cast, *i. e.*, a plaster-of-Paris reproduction, of a leg was called, not a "cast," but a "model." A model it certainly was not, for it was not intended for reproduction; instead, an appliance was to be fitted on it. In this case the human leg was the "model" and the cast reproduced it. The cast was not to be used as a model for anything. The editors of The Journal have taken many liberties with my articles. They have changed anything that seemed good to them, even to the title, and the articles have always gained in clearness thereby. And I can not believe that The Journal's contributors would feel hurt if the editors were to rescue them from a misuse of ordinary English words.

F. S. M.

Answer.—Our correspondent is undoubtedly right in the distinction which he draws between a mold—a form or matrix for shaping something in a fluid or plastic condition—and a cast—a reverse copy, in some plastic material, of a mold. We fail to find, however, that he is fully justified in his contention in regard to the word "model." According to the Standard Dictionary, a model is "an object, usually in miniature, representing accurately something to be made or already existing . . . A model may be either the thing to be copied or the copy that has been made from it." Thus, a miniature reproduction of a ship is called a "model," though not intended to serve as a pattern in making future ships.

TO DISGUISE THE ODOR OF ETHER

To the Editor:—What will effectively disguise the pungent odor of ether? I do not want an oil, but would like some alcoholic or ethereal extract like cologne, etc., that would accomplish the purpose.

D. Kramer, New York.

Answer.—Compound esters like ethyl acetate (acetic ether) or amyl acetate, or valerianate might be tried, but some of the essential oils such as oil of wintergreen, sassafras, etc., would be more efficient.

The Public Service

Army Changes

Memorandum of changes of stations and duties of medical officers for the week ended April 24, 1909:

Hartnett, E. H., major, ordered to duty at Fort Du Pont, Del., on the expiration of his present leave of absence.

Murray, A., capt., ordered to Fort Du Pont, Del., instead of the Philippines division.

Tefft, W. H., capt., Fort Baker, Cal., ordered to duty with troops at Sequoia National Park, Cal.

Cox, W., capt., honorably discharged from the service of the United States, with one year's pay.

Richards, R. L., capt., relieved from duty at Fort Wayne, Mich., and ordered to Washington, D. C., for a special course of instruction at the Army Medical School.

Yost, J. D., capt., granted leave of absence for one month.

Coffin, J. M., capt., relieved from duty at the Army and Navy General Hospital, Hot Springs, Ark.; will sail July 5, 1909, for Philippine service.

Snyder, H. D., Smith, A. M., Wilson, J. S., Fuller, L. A., Skinner, G. A., Edger, B. J. Jr., Robbins, C. P., majors, relieved from duty in the Philippines division in time to sail July 15 for San Francisco.

Reynolds, C. R., capt., relieved from duty with Company C, Hospital Corps, and ordered to duty at the Walter Reed Army General Hospital, Washington, D. C.

Woodruff, C. E., major, Kirkpatrick, T. J., major, relieved from duty at Fort Wadsworth, N. Y., and Fort Moultrie, S. C., respectively, in time to proceed to San Francisco and sail July 5, 1909, for Philippine service.

Hess, L. T., major, granted an extension of one month to his leave of absence.

Perley, H. O., colonel, ordered at the expiration of his present leave of absence to Denver, for duty as chief surgeon, Department of the Colorado, and attending surgeon in Denver.

La Garde, L. A., lieut-col., when relieved from duty at Denver, ordered to San Francisco for duty as chief surgeon, Department of California.

Kean, J. R., lieut-col., ordered to New York City, to represent the medical department of the army at the meeting of the Medical Society of the County of New York, April 26, 1909.

Graves, L. K., M. R. C., honorably discharged from the service of the United States May 8, 1909, his services being no longer required; granted leave of absence to include May 8.

Kierulff, H. N., M. R. C., granted leave of absence for 23 days.

Johnson, T. H., M. R. C., ordered to active duty and assigned to duty at Fort Du Pont, Del.

Foster, G. B., M. R. C., ordered to active duty, and assigned to duty at Fort Totten, N. Y.

Haley, J. C., M. R. C., ordered to active duty, and assigned to duty at Fort Porter, N. Y.

Fox, J. S., M. R. C., ordered to active duty, and assigned to duty at Fort Sam Houston, Texas.

Demmer, C. C., M. R. C., ordered to active duty, and assigned to duty at Fort Ontario, N. Y.

Fisk, O. C., M. R. C., ordered to active duty, and assigned to duty at Fort Leavenworth, Kan.

King, C. T., M. R. C., ordered to active duty, and assigned to duty at the Presidio of Monterey, Cal.

Napier, Edw. L., M. R. C., ordered to active duty and assigned to duty at Fort McPherson, Ga.

Bowman, M. H., M. R. C., ordered from Depot of Recruits and Casuals, Angel Island, Cal., to Fort Baker, Cal., for temporary duty.

Burket, J. A., M. R. C., ordered to active duty, and assigned to Fort Snelling, Minn., for duty.

Chase, A. M., M. R. C., relieved from duty at Fort Sam Houston, Texas, and ordered to Fort St. Philip, La., for duty.

Brown, P. D., M. R. C., relieved from duty at Fort St. Philip, La., and ordered to Fort Sam Houston, Texas, for duty.

Trotter-Tyler, G., M. R. C., ordered to Washington Barracks, D. C., for temporary duty, and then to return to Fort Adams, R. I.

Stallman, G. E., D. S., arrived at Fort Bliss, Texas, for duty.

Hammond, W. G., D. S., left Fort Wingate, N. M., and arrived at Fort Logan, Colo., for duty.

Whinnery, J. C., D. S., ordered from Vancouver Barracks, Wash., to a tour of Alaskan posts—Fort Liscum, Fort William H. Seward, Fort Egbert, Fort Gibbon, Fort St. Michael and Fort Davis.

Lauderdale, C. E., D. S., ordered to Fort Logan, Colo., for duty, at the expiration of his present leave of absence.

Hammond, W. G., D. S., relieved from duty at Fort Logan, Colo., in time to proceed to San Francisco and sail June 5 for Philippine service.

Navy Changes

Changes in the Medical Corps, U. S. Navy, for the week ended April 24, 1909:

Fiske, C. N., P. A. surgeon, detached from the Bureau of Medicine and Surgery, Navy Department, and ordered to temporary duty at the Navy Yard, Washington, D. C.

de Figaniere, P. A., and McMurdo, H. B., acting asst.-surgeons, detached from duty at the Naval Medical School, Washington, D. C., and resignations accepted to take effect April 21, 1909.

Bogert, E. S., Jr., surgeon, detached from the Marine Recruiting Station, New York, and ordered to the Naval Academy.

Kennedy, J. T., surgeon, detached from the *Independence* and ordered to the *Colorado*.

DeValin, C. M., surgeon, orders of March 22 modified: Detached from the *Washington* and ordered to the Navy Yard, Washington, D. C.

Leach, P., surgeon, detached from the *Hancock* and ordered to the Marine Recruiting Station, New York.

Dunn, H. A., P. A. surgeon, detached from the *Colorado* and ordered to the *Independence*.

Turner, H. W. B., asst. surgeon, ordered to the *Hancock*.

Public Health and Marine-Hospital Service

List of changes of stations and duties of commissioned and other officers of the Public Health and Marine-Hospital Service for the seven days ended April 21, 1909:

Geddings, H. D., asst. surgeon-general, relieved from duty in Bureau as assistant surgeon-general, to take effect April 20, 1909.

Geddings, H. D., asst. surgeon-general, directed to proceed to certain points in Europe upon special temporary duty as inspector of vaccine and antitoxin establishments.

McIntosh, W. P., surgeon, granted 7 days' leave of absence from April 24, 1909.

Wertenbaker, C. P., surgeon, directed to report at bureau upon special temporary duty.

Cofer, L. E., P. A. surgeon, detailed to represent the service at the annual meeting of the South Carolina State Medical Association at Summerville, S. C., April 20, 1909.

Robinson, D. E., P. A. surgeon, granted 5 days' leave of absence from March 28, 1909, on account of sickness.

Long, J. D., P. A. surgeon, granted 1 month's leave of absence from May 1, 1909.

Stimson, A. M., P. A. surgeon, relieved from special temporary duty at Los Angeles, Cal., and directed to rejoin station, Washington, D. C.

Hurley, J. R., asst. surgeon, relieved from temporary duty at San Francisco quarantine and directed to proceed to Manila, P. I., and report to the chief quarantine officer for duty.

Blanchard, J. F., acting asst.-surgeon, granted 1 day's extension of leave of absence, April 16, 1909.

Delgado, J. M., acting asst. surgeon, granted 2 days' extension of annual leave from April 6, 1909, on account of sickness.

McLarty, A. A., acting asst. surgeon, granted 3 days' leave of absence from April 6, 1909, under paragraph 210, Service Regulations.

BOARD CONVENED

Board of medical officers convened to meet at the Marine Hospital, San Francisco, Cal., May 3, 1909, for the examination of candidates for admission to the service as asst.-surgeon. Detail for the board: Surgeon H. W. Austin, chairman; P. A. Surgeon Rupert Blue, P. A. Surgeon F. E. Trotter, recorder. April 15, 1909.

Health Reports

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended April 23, 1909:

SMALLPOX—UNITED STATES

Alabama: Birmingham, March 1-31, 10 cases.

California: Los Angeles, March 27-April 3, 1 death.

Georgia: Macon, April 4-11, 6 cases.

Illinois: Alton, March 1-31, 1 case; Galesburg, April 3-10, 2 cases.

Indiana: Indianapolis, April 4-11, 1 case; LaFayette, April 5-12, 1 case.

Iowa: Council Bluffs, April 5-12, 1 case; New Hampton, Feb. 26-April 15, 8 cases.

Kansas: Kansas City, April 3-10, 2 cases; Topeka, March 6-April 3, 12 cases.

Kentucky: Covington, April 3-10, 2 cases; Lexington, 1 case; Paducah, March 26-April 3, 1 case.

Michigan: Saginaw, March 26-April 3, 2 cases.

Minnesota: Duluth, April 1-8, 6 cases.

Montana: Butte, March 30-April 6, 2 cases.

Nebraska: South Omaha, April 3-10, 2 cases.

New Jersey: Camden, April 3-10, 1 case; Lodi, March 12, 1 case.

North Dakota: Sherwood and vicinity, Jan. 12-April 5, 73 cases.

Ohio: Cincinnati, April 1-7, 7 cases.

Texas: San Antonio, April 3-10, 1 case.

Virginia: Richmond, April 3-10, 1 case.

West Virginia: St. Albans, Feb. 16-April 12, 19 cases.

Wisconsin: LaCrosse, April 3-10, 2 cases; Milwaukee, March 13-April 3, 23 cases; Racine, April 3-10, 1 case.

SMALLPOX—FOREIGN

Algeria: Bona, Jan. 1-31, 16 cases, 7 deaths; Feb. 1-28, 25 cases, 13 deaths.

Brazil: Para, March 20-27, 1 case, 1 death; Pernambuco, Feb. 15-28, 5 deaths; Rio de Janeiro, Feb. 27-March 7, 25 cases, 14 deaths.

Canada: Halifax, March 27-April 3, 2 cases.

Ceylon: Colombo, Jan. 23-Feb. 13, 31 cases, 9 deaths.

China: Tientsin, Feb. 20-27, 1 case.

France: Paris, March 20-27, 3 cases.

Great Britain: Bristol, March 20-27, 1 death.

India: Bombay, March 9-16, 18 deaths; Calcutta, Feb. 27-March 6, 315 deaths; Madras, March 6-13, 1 death; Rangoon, Feb. 27-March 6, 8 deaths.

Indo-China: Saigon, Feb. 20-27, 7 cases, 5 deaths.

Italy: General, March 21-28, 2 cases; Catania, March 20-27, 2 cases; Naples, March 21-28, 16 cases.

Java: Batavia, Feb. 20-March 6, 9 cases, 1 death.

Mexico: Guadalajara, March 25-April 1, 2 deaths; Monterey, March 29-April 4, 3 deaths.

Newfoundland: St. Johns, March 22-April 3, 2 cases.

Peru: Lima, March 25, 1 case, in lazaretto.

Portugal: Lisbon, March 20-April 3, 11 cases.

Russia: Moscow, March 13-20, 19 cases, 11 deaths; Odessa, March 13-April 2, 1 case; Riga, March 29-April 5, 1 case; Warsaw, Jan. 16-30, 6 cases.

South Africa: Cape Town, March 6-13, 1 case.

Spain: Barcelona, March 22-29, 2 deaths; Valencia, March 19-26, 5 cases, 3 deaths; Vigo, March 20-27, 1 case.

Straits Settlements: Penang, Feb. 27-March 6, 1 case, imported.

Tripoli: Tripoli, March 20-27, 2 deaths.

Turkey: Constantinople, March 20-28, 1 death; Smyrna, Feb. 26-March 4, 2 deaths; March 18-25, 3 deaths.

YELLOW FEVER

Barbados: March 27-April —, 3 cases, 2 deaths.

Ecuador: Guayaquil, March 13-20, 26 cases, 10 deaths.

CHOLERA

India: Bombay, March 9-16, 1 death; Calcutta, Feb. 27-March 6, 67 deaths; Rangoon, 3 deaths.

Russia: St. Petersburg, March 27-31, 13 cases, 3 deaths.

PLAGUE

Brazil: Rio de Janeiro, Feb. 28-March 7, 5 cases, 1 death.

Chile: Antofagasta, March 1-20, 24 cases; Iquique, March 21, 26 cases, in lazaretto.

Ecuador: Guayaquil, March 13-20, 5 cases, 3 deaths.

India: General, March 30-April 6, 5,033 cases, 4,109 deaths; Bombay, March 9-16, 286 deaths; Calcutta, Feb. 29-March 6, 71 deaths; Rangoon, 9 deaths.

Peru: General, March 13-27, 54 cases, 25 deaths; Callao, March 14-27, 4 cases.

Marriages

E. R. Sausser, M.D., to Miss Eleanor Moore, both of Philadelphia, April 14.

James Joseph Roach, M.D., to Miss Edna Nacey, both of Chicago, April 20.

Fred A. Metts, M.D., Ossian, Ind., to Miss Mabel Sanders of Sarnia, Ont., April 14.

John Norman Henry, M.D., to Miss Mary K. Gibson, both of Philadelphia, April 13.

Robert Hurtin Halsey, M.D., to Miss Edith Bates, both of New York City, April 14.

Arnold Knapp, M.D., New York City, to Miss Julia James Long, at Camden, S. C., April 14.

Eugene A. Hildreth, M.D., to Miss Mary Elizabeth Hazlett, both of Wheeling, W. Va., April 15.

Eugene F. Raphel, M.D., Wheeling, W. Va., to Miss Julia Cairns Cherbonnier, at Baltimore, April 12.

Robert T. Miller, Jr., M.D., Baltimore, Md., to Miss Mary Edes Hooper, at Bridgewater, Mass., April 15.

Edward Cussler, M.D., New York City, to Miss Mary Lansing Catlin of Washington, D. C., April 22.

William B. Warthen, M.D., Bartow, Ga., to Miss Sallie Bell Newsom of Davisboro, Ga., at Macon, Ga., April 15.

Launcelot Longstreet Minor, M.D., Hollywood, Miss., to Miss Louise Bragg of Arlington, Tenn., at Memphis, April 13.

Deaths

Joseph H. Chittenden, M.D. Bellevue Hospital Medical College, New York City, 1864; a member of the Medical Society of the State of New York; from 1869 to 1870 president and from 1879 to 1884 secretary of the Broome County Medical Society; a member of the Binghamton Academy of Medicine; consulting physician to the Binghamton Hospital; physician to the Susquehanna Valley Orphans' Home; contract surgeon in the Army during the Civil War; jail physician of Binghamton for several years; a member and in 1881 and 1884 president of the school board; died suddenly at his home in Binghamton, April 14, from heart disease, aged 69.

Edgar Thrush Duke, M.D. University of Maryland, Baltimore, 1891; a member of the Medical and Chirurgical Faculty of Maryland; formerly president and for several years secretary of the Allegany County Medical Society; one of the organizers of the Western Maryland Training School for Nurses; died at his home in Cumberland, April 13, from pneumonia, aged 43. At a called meeting of the Cumberland Academy of Medicine, resolutions were unanimously adopted regarding the death of Dr. Duke, and the medical profession of the city in a body attended his funeral.

Samuel Marshall Orr, M.D. Jefferson Medical College, Philadelphia, 1879; of Anderson, S. C.; a member of the first State Board of Medical Examiners; a member of the South Carolina Medical Association, and once president of the Anderson County Medical Association; local surgeon for the Charleston and Western Carolina and Blue Ridge Railways; president and trustee of the Anderson Water, Light and Power Company, and president and treasurer of the Orr Cotton Mills; died at Johns Hopkins Hospital, Baltimore, April 14, after a surgical operation, aged 53.

Albert H. Simonton, M.D. Cincinnati College of Medicine and Surgery, 1893; from 1898 to 1902 contract surgeon in the United States Army; and afterward chief surgeon of the Arkansas Southwestern Railroad at Fordyce; died at his home in Chicago, April 19, from the effects of morphin, believed to have been self-administered with suicidal intent, while despondent, aged 63.

Frank Winthrop Draper, M.D. Harvard Medical School, Boston, 1869; for thirty-five years professor of legal medicine in his alma mater; a member of the Massachusetts Medical Society and an authority on medicolegal topics; a veteran of the Civil War; from 1877 to 1905 medical examiner of Suffolk county; died at his home in Brookline, April 19, from pneumonia, aged 66.

William Hungerford Burr, M.D. University of Maryland, Baltimore, 1884; a member of the American Medical Association; for four years surgeon in charge of the Santa Fe System Hospital and surgeon to the Clark Coal Company, Gallup, N. M.; died in the Santa Fe Hospital, Albuquerque, N. M., April 13, from pneumonia, aged 49.

Robert H. Alvis, M.D. University of Nashville (Tenn.), 1874; a member of the Oklahoma State Medical Association and of the Frisco System Medical and Surgical Society; physician of Carter county, Okla., and local surgeon of the Frisco system at Ardmore; died suddenly at his home in that city, April 15, from nephritis, aged 57.

Charles W. Power, M.D. Western Reserve Medical College, Cleveland, Ohio, 1888; of Wooster, Ohio; chief surgeon of the construction work of the Harriman System in Mexico and Arizona; and prior to that a medical missionary in Korea; died in Nogales, Ariz., March 20, six days after an operation for abscess of the liver, aged 49.

Hervey Prentice Hudson (license, Tenn., 1889); of Woodland, Tenn.; a member of the Tennessee State Medical Association; formerly president of the Haywood County Medical Association; county physician and formerly health officer of Hanley, Tenn.; died in Brownsville, April 6, from cerebral hemorrhage, aged 57.

Rosa Freudenthal Monnish, M.D. Georgia College of Eclectic Medicine and Surgery, Atlanta, 1882; who on March 24 is said to have been found guilty of illegal use of the mails; died at her home in Atlanta, April 19, from the effects of hydrocyanic acid, taken, it is believed, with suicidal intent.

William Lee Richardson, M.D. Jefferson Medical College, Philadelphia, 1848; a member of the American Medical Association; and said to be the oldest member of the Medical Society of the State of Pennsylvania; died at his home in Montrose, March 19, from influenza, aged 93.

njamin F. Gamber, M.D. Homeopathic Hospital College, Cleveland, Ohio, 1877; formerly professor of anatomy, physiology and hygiene in his alma mater; of Oakland, Cal.; a fellow of the Royal Microscopical Society; died in Lancaster, Pa., April 14, from nephritis, aged 65.

Lucius Maltby Barney, M.D. Denver (Colo.) College of Medicine, 1902; medical director of the Health and Accident Company, Denver; formerly a member of the Colorado State Medical Association; died at Palisades, Colo., from meningitis, April 7, aged 38.

John Milton McCanna, M.D. Jefferson Medical College, Philadelphia, 1905; of Mount Joy; a member of the Medical Society of the State of Pennsylvania; died in the Lancaster General Hospital, April 16, from tuberculosis of the liver, aged 34.

Joseph J. Thaxton, M.D. Jefferson Medical College, Philadelphia, 1840; for fifty years a practitioner of Person County, N. C.; and since 1890 a resident of Durham; died at the home of his daughter in that city, April 12, from senile debility, aged 91.

Pierce Elliott Dean, M.D. University of Alabama, Mobile, 1892; a member of the Medical Association of the State of Alabama; died at his home in Wedowee, Ala., Aug. 29, 1908, from paralysis of the pneumogastric nerve, aged 59.

James Wilson Bryant, M.D. Medical College of Virginia, Richmond, 1876; for many years local surgeon of the Norfolk and Western Railroad at Crewe, Va.; and mayor of that city; died at his home April 12, aged 56.

Alonzo Lyons Whitcomb, M.D. Northwestern University Medical School, Chicago, 1874; a member of the Arkansas Medical Society; died suddenly at his home in Rogers, Ark., April 10, from cerebral hemorrhage, aged 60.

Walter Sheridan Owen, M.D. University of Louisville, Ky., 1907; formerly of Muskogee, Okla.; a member of the Oklahoma State Medical Association; died at his home in Rogers, Ark., April 4, from tuberculosis, aged 29.

John P. H. Gray, M.D. Missouri Medical College, St. Louis, 1856; for three terms a member of the Missouri Legislature from Moniteau county; died at his home in California, Mo., February 11, from paralysis, aged 87.

Fletcher C. Lawyer, M.D. Jefferson Medical College, Philadelphia, 1873; of Missoula, Mont.; died February 17, from erysipelas complicating diabetes, in Los Angeles, Cal., where he had gone for his health, aged 55.

Jacob Stevenson Nichols, M.D. Bellevue Hospital Medical College, New York City, 1872; a member of the North Texas Medical Society; died at his home in Handley, Texas, January 25, from pneumonia, aged 64.

Ira Steinberger, M.D. American Medical College, Eclectic, St. Louis, 1880; one of the earliest settlers in Neosho county, Kan.; a practitioner of Erie for nearly forty years; died at his home, April 8.

Juan Louis Zabala, M.D. College of Physicians and Surgeons, New York City, 1897; at one time coroner's physician of San Francisco; died in Salinas, Cal., April 11, from typhoid fever, aged 38.

Andrew McBride, M.D. Medical College of the State of South Carolina, Charleston, 1889; of Holder, Fla.; died in St. Leo's Hospital, Greensboro, N. C., July 26, 1908, from typhoid fever.

George E. Tytler, M.D. New York Homeopathic Medical College, New York City, 1873; died at his home in New York City, April 16, from cerebral hemorrhage, aged 60.

John R. Wampler, M.D. American Eclectic Medical College of Ohio, Cincinnati, 1888; died at his home in Dayton, Ohio, April 13, from dilatation of the heart, aged 59.

Leonidas O. P. Wolfe, M.D. Rush Medical College, Chicago, 1866; of Mauckport, Ind.; died suddenly at the home of his brother in that place, March 30, aged 67.

Joseph Harvey Lovell, M.D. Hygieo-Therapeutic College, New York City, 1873; died at his home in Langhorne, Pa., July 28, 1908, from paralysis, aged 74.

Joseph S. Boone, M.D. Cincinnati College of Medicine and Surgery, 1872; a veteran of the Civil War; died at his home in Powhatan, Ohio, April 2, aged 69.

Garrison Brown, M.D. College of Physicians and Surgeons, Keokuk, Iowa, 1878; died at his home in Crescent City, Ill., April 13, from pneumonia, aged 62.

Cora Lee Outcalt, M.D. Hahnemann Medical College, Chicago, 1902; formerly of Ottawa, Ill.; died at her home in Chicago, April 20, from carcinoma, aged 47.

R. Frank C. Browne (license, R. I., years of practice, 1895); died in his apartment in Providence, R. I., April 12, from heart disease, aged 53.

Alonzo Bryan, M.D. Medical College of Ohio, Cincinnati, 1875; of Detroit; died in the Red Cross Hospital in that city, April 13, aged 69.

John A. Parke, M.D. Trinity Medical College, Toronto, 1894; of Arcola, Sask.; died at Feversham, Ont., recently, from heart disease.

Thomas P. Blunt (license, Ark.,* 1903); died at his home in Little Rock, April 7, from cancer of the intestine, aged 52.

Henry James Metcalfe, M.D. McGill University, Montreal, 1873; died at his home in Thurso, Que., April 15, aged 58.

Charles Harris McKenna, M.B. University of Toronto, 1899; died at his home in Dublin, Ont., January 1.

Medical Economics

THIS DEPARTMENT EMBODIES THE SUBJECTS OF ORGANIZATION, POSTGRADUATE WORK, CONTRACT PRACTICE, INSURANCE FEES, LEGISLATION, ETC.

A Physician's Review Course

Comparatively few physicians feel able to spare the time necessary to take an annual postgraduate course, yet the need of keeping abreast of the progress in medical knowledge is a very real one. The advantage of a brief review course, especially in laboratory work, is evident, a fact which at least one state has recognized.

The board of regents of the University of Nebraska, at the instance of its medical faculty, has authorized the introduction of an annual review course of one week's duration, which is "open to all graduates of reputable medical schools." Stress is laid on the fact that this is not a postgraduate course as such is usually understood. "It is a course in which a practitioner is able to make a more intimate acquaintance with prominent advances in medicine than is possible through the medium of text-books or journals." These courses are exclusively for practitioners, and are given at the state university. They are made even more valuable by being given during the week just preceding the meeting of the state medical society; this year they commenced Monday, April 26 and closed Saturday, May 1, the Nebraska State Medical Association convening May 4. By this arrangement physicians who wish to attend their state meeting can, by leaving a week earlier, take in both the review course and the association meeting.

The general outline of the course is: Clinical work in the mornings, lectures and laboratory work in the afternoons, while formal and technical lectures followed by full discussions are given in the evenings. The subjects dealt with in this year's course included anatomy, bacteriology and pathology, chemistry, clinical diagnosis, histology, medical zoology, orthopedics, pathologic diagnosis, pharmacodynamics, physiology, psychiatry and surgical diagnosis.

A New County Society Bulletin

The Hennepin County (Minnesota) Medical Society has begun to issue a monthly bulletin, a four-page folder, containing the programs of coming meetings, announcements regarding medical society matters, names of physicians proposed for membership, etc. The publication of bulletins, either weekly or monthly, by the larger medical societies affords a regular, cheap and efficient means of communication with members.

Local Secretaries Organize

The secretaries of the branch and affiliated societies of the Chicago Medical Society have organized a Secretaries' Association to cooperate with the officers of the Chicago Medical Society to increase the efficiency of the work of the organization. Two meetings will be held during the year, one in September and one in January. At the first meeting, held April 1, organization was effected and officers elected, sixteen of the twenty-five societies being represented. This movement is an extension of the plan of county secretaries' meetings, such as have been held in a number of states. The new society will doubtless be of great assistance in facilitating the work of organization in Cook county.

The Optometry Bill and the Practice of Medicine

A bill is before the legislature of the state of Illinois to have a so-called optometry bill enacted to license persons to fit glasses and treat certain diseases of the ocular apparatus.

The medical profession is opposed to the passage of such legislation for the following reasons:

1. The examination of the eye with ophthalmologic instruments for the discovery of visual defects and their cure is the proper function of the educated, trained and experienced physician. As is well known, the determination of the refraction is often the smallest and least important part of the treatment of weakness of sight or defective vision.
2. The work of the skilled optician is that of grinding, mounting and adjusting glasses. The optician who knows nothing whatever about anatomy, physiology or pathology is utterly incompetent to decide what the meaning of a patient's symptoms may be. It sometimes means the need of glasses; quite often it has nothing to do with that need. The determination of this important question can, in the interest of the patient, be only settled by one who has made a study of human anatomy, physiology, pathology, etc.; *in other words*, by the educated, graduated and trained physician.
3. The functions of the optician and the duly qualified medical man should be kept separate in the same manner and for the same reasons that the druggist's business of filling prescriptions is by law distinctly separated from the physician's business of prescribing. In our opinion, the proper relations of the druggist and the optician are analogous. In the case of the druggist the law wisely forbids the druggist to prescribe medicine or to sell certain drugs and compounds without the authority of the physician's prescription. It is believed by the medical profession that, in the interests of the patients, the optician should be restricted in a similar manner.

Any persons desiring to practice medicine or any of the specialties of the medical profession should qualify themselves for it in the regular way prescribed by law, and not seek to get in by way of a side door, i. e., by getting a diploma from any board of examiners other than the now lawfully constituted boards.

For the reasons stated, the medical profession is opposed to permitting examination of eyes for fitting glasses beyond the ordinary use of test cards, or by the employment of ophthalmologic instruments of any kind in the testing of eyesight, by any persons who are not regular medical practitioners, be they styled opticians, eyesight specialists, optometrists, doctors of optometry or refractionists.

A. H. Andrews, Chairman,
Willis O. Nance, Secretary,
Thomas Faith,
W. L. Noble,
Thomas A. Woodruff,
Committee on Legislation of the
Chicago Ophthalmological Society.

POSTGRADUATE COURSE FOR COUNTY SOCIETIES

DR. JOHN H. BLACKBURN, DIRECTOR
Bowling Green, Kentucky

[The Director will be glad to furnish further information and literature to any county society desiring to take up the course.]

Tenth Month

General Subject for the Month: Diseases of the Ear

First Weekly Meeting

ANATOMY OF THE EAR

External Ear.—(1) Auricle: Structure, shape, attachments, helix, antihelix, fossæ, tragus, antitragus, lobule. (2)

External Auditory Canal: Structure, diameters, length, direction, portions, ceruminous glands. Relations of each wall. Blood and nerve supply, lymphatics.

Middle Ear.—*Membrana tympani:* *Location*, plane, attachments, structure, Shrapnell's membrane, Prussak's space, membrana vibrans, umbo, handle of malleus, blood vessels and nerves. *Tympanic cavity:* *Location*, boundaries and relations: contents, ossicles, *shape and attachments* of each; fenestrum ovale; *Eustachian tube, length*, boundaries, structure; aditus ad antrum; mastoid process, antrum, cells, situation and size, roof, floor and walls, relations of each supramcatal triangle.

Internal Ear.—Osseous boundaries. Vestibule, cochlea, semicircular canals, endolymph, organ of Corti, otoliths, distribution of auditory nerve.

PHYSIOLOGY OF HEARING

Function of auricle, tympanic membrane; ossicles, connections, *modes of action: muscles of middle* ear, attachments, function of each; Eustachian tube; cochlea, semicircular canals, utriculus and sacculus. *Distribution* of auditory nerve. Properties of sounds. Harmony and discord.

Reference books for the tenth month: Politzer: Diseases of the Ear. Barnhill and Wales: *Modern Otology*. Ballenger: Diseases of Nose, Throat and Ear. Dench: Diseases of the Ear. Bacon: Manual of Otology. Love: Diseases of the Ear. Kyle, J. J.: Manual of Diseases of the Ear, Nose and Throat. Gleason's Manual of Diseases of Ear, Nose and Throat. Whiting: The Modern Mastoid Operation.

Medical Education and State Boards of Registration

COMING EXAMINATIONS

Florida: Tallahassee, May 19-20. Sec., Dr. J. D. Fernandez, Jacksonville.
Massachusetts: State House, Boston, May 11-13. Sec., Dr. Edwin B. Harvey, Room 159, State House.
Mississippi: State Capitol, Jackson, May 11-12. Sec., Dr. S. H. McLean.
Missouri: Kansas City, May 17-19. Sec., Dr. J. A. B. Adcock, Warrensburg.
Missouri: Kansas City, May 17-19. Sec., Dr. J. A. B. Adcock,
Nebraska: State Capitol, Lincoln, May 25-27. Secretary, Dr. E. J. C. Sward, Oakland.
New York: Albany, May 18-21. Dr. Charles F. Wheelock, Albany.

COUNCIL ON MEDICAL EDUCATION OF THE AMERICAN MEDICAL ASSOCIATION

Fifth Annual Conference, held at the Auditorium Hotel, Chicago, April 5, 1909

(Continued from page 1353)

Report of the Secretary

Following the address of the Chairman, the Secretary of the Council, Dr. N. P. Colwell, gave the following report of the work of the past year

Mr. Chairman, Members of the Council and Delegates:

Gentlemen:—For five years the Council on Medical Education has been working for higher and more uniform standards of medical education. In this time so many changes for the better have been brought about that some references to them in the course of this report should be made. Such influence as the Council may have had toward these improvements has been due largely to the following facts:

1. The Council is the permanent committee on education of the medical profession of America, represented by the American Medical Association. As such, its *interests* are national *and its object is the betterment* of medical education in all sections of *the country*.

2. It is a permanent committee, thereby exerting a constant, steady pressure for improvement, not possible through temporary committees, however excellent their work *might* be.

3. Its permanent headquarters at the home of the medical profession of America and its connection with the *Journal of the American Medical Association*, with its extensive correspondence, made it possible to obtain much information regarding medical education which otherwise could not have been secured.

4. An abundance of information has been collected, tabulated and published regarding medical colleges, standards, students, graduates, facilities and equipment, as well as much information regarding the requirements for license to practice medicine both in this country and abroad. There has also been collected considerable information regarding elementary, secondary and collegiate education.

5. Indeed, "knowledge is power," and this information, formerly not to be had, has thrown much light on medical education, revealing quite clearly problems which otherwise could not have been seen.

6. As problems have arisen they have been presented at these conferences for discussion and some movements have been started which are rapidly bearing fruit. On the whole, much has been accomplished, which will be briefly outlined in the following report, showing the present status of preliminary and medical education in the United States:

PRELIMINARY EDUCATION.

Investigation reveals much confusion in standards not only among medical schools, but also in high schools, colleges and all other departments of education. No previous time, however, has seen so many forces at work in the effort to standardize the different departments and to develop *system and* uniformity.

High Schools.—Many of the states are seriously lacking in good high schools, which observation applies as much to a number of states north of the Mason and Dixon line as to those south of it. In fact, there are very few states which have all their high schools well organized, *well equipped and* supplied with well qualified, college-trained teachers. This department of education is now being systematically taken up by various organizations, including the General Education Board, and throughout the southern states a high-school inspector with the title of a "Professor of Secondary Education" has been placed with each state university. Public sentiment throughout the south is rapidly being awakened and already vast sums have been appropriated by legislatures to develop high schools. Leading educators in the south state that within four to five years that section will be fairly well *provided with four-year high schools.*

Colleges and Universities.—Several educational organizations, including the Associations of Universities and the Carnegie Foundation for the Advancement of Teaching, are now at work in an effort to standardize colleges and universities, many of which at the present time, from an educational standpoint, have no right to such titles, since *they give courses of little more, or even of less value*, than those in some of the better high schools.

The Carnegie Foundation for the Advancement of Teaching has also fixed an entrance requirement to universities consisting of 14 units of *high* school work, a unit being defined as representing 5 weekly recitations of 40 minutes each for a year. The 14 units adopted require *four years of high school work superimposed* upon eight years in the elementary grades and involve a fair distribution of time among different subjects.

PRELIMINARY REQUIREMENTS OF MEDICAL SCHOOLS

Eleven medical colleges already require two or more years of work in a college of liberal arts for admission. *These* colleges and the years when such requirement began are as lows:

College.	Began.
Johns Hopkins University Medical Department	1893
Harvard Medical School	1900
Western Reserve University, Medical Department	1901
University of Chicago, Rush Medical College	1904
University of California, Medical Department	1905
University of Minnesota, Coll. of Med. and Surg.	1907
University of Minnesota, Homeopathic Department	1907
University of North Dakota, College of Medicine	1907
University of Wisconsin, College of Medicine	1907
Cornell University Medical College	1908
Lake Forest College, School of Medicine	1908

Eighteen other colleges have definitely announced an increase in their entrance requirements to two *or more* years in a college of liberal arts. These and *the dates* when such requirements will become effective are as follows:

College.	Begins
[illegible] Junior University, Department of Medicine	1909
[illegible]	1909
*[illegible] Medical School	1909
[illegible] School of Medicine	1909
University of Michigan, College of Medicine	1909
*University of Nebraska, College of Medicine	1909
University of South Dakota, College of Medicine	1909
University of Colorado, School of Medicine	1910
†*Indiana* University School of Medicine	1910
†State University of Iowa, Colledge of Medicine	1910
Drake University, College of Medicine	1910
‡University of Missouri, Department of Medicine	1910

John A. Creighton Medical College	1910
Dartmouth Medical School	1910
Columbia University, College of Physicians and Surgeons	1910
†Syracuse University, College of Medicine	1910
‡University of Pennsylvania, Medical Department	1910
†University of Utah, Medical Department	1910

* One year required for the session of 1908-09.

† Will require one year for the session of 1909-10.

‡ One year has been required since 1906.

The 21 following colleges either already require one year of work in a college of liberal arts in addition to a four-year high school course, or have announced their intention to do so on or before the year given:

College.	In Force.
Fordham University, School of Medicine	1908
University of North Carolina, Medical Department	1909
Oakland College of Medicine and Surgery	1910
Denver and Gross College of Medicine	1910
College of Physicians and Surgeons, Chicago	1910
Hahnemann Medical College, Chicago	1910
Kansas Medical College	1910
Tulane University of Louisiana, Medical Department	1910
St. Louis University School of Medicine	1910
Washington University, Medical Department	1910
University of Cincinnati, Medical Department	1910
Starling-Ohio Medical College	1910
Cleveland College of Physicians and Surgeons	1910
University of Oklahoma School of Medicine	1910
University of Oregon, Medical Department	1910
Vanderbilt University, Medical Department	1910
University of Texas, Medical Department	1910
*University of Virginia, Department of Medicine	1910
West Virginia University, College of Medicine	1910
Marquette University Medical Department	1910
Wisconsin College of Physicians and Surgeons	1910

* Requires a three year high school course plus one year of college work.

Several other colleges announced to us that higher requirements had been adopted. Two have since rescinded their action, five have merged into other colleges, and others, on inspection, being found unworthy of recognition, were omitted from the lists. The schools above named, however, have made definite statements in their announcements regarding the increase in their entrance requirements and doubtless mean what they say.

In support of these higher standards, the State Examining Boards of six states have established higher requirements of preliminary education. These states and the years when the requirement will become effective are as follows:

State Examining Board of	No. of years Required.	Affects students matriculating	Affects all applicants after
Minnesota	2	1908-09	1912
Connecticut	1	1908-09	1912
North Dakota	2	1907-08	1911
South Dakota	1	1907-08	1911
Colorado	1	1908-09	1912
Kansas	1	1910-11	1914

Several other states are contemplating a similar increase in their requirements of preliminary education. In some of these the increase would doubtless be welcomed, since medical colleges have already adopted the increased requirements.

MEDICAL COLLEGE MERGERS

Since our last conference there have been five important mergers of medical colleges by which nine medical schools are replaced by four stronger ones. These mergers were as follows:

1. At Louisville, Ky., the Louisville and Hospital Medical College, the Kentucky School of Medicine and the University of Louisville Medical Department united, retaining the name of the University of Louisville Medical Department. This leaves but one regular medical college in Louisville, where there were five colleges two years ago. As a direct result of this merger, the school has received $25,000 from the city of Louisville, and steps have been taken to build a new city hospital, which is to be largely under the control of the medical school.

2. At Cincinnati, the merger between the Medical College of Ohio and the Miami Medical College has been completed, the new school to be the Medical Department of the University of Cincinnati. The building of an enormous new city hospital has already been started near the university campus and a new medical college building will be erected adjoining this hospital. The outlook for this new school is very encouraging.

3. The Keokuk Medical College, College of Physicians and Surgeons, located at Keokuk, Iowa, has turned all its property and good will over to the Drake University, College of Medicine, at Des Moines, Iowa.

4. The University of Southern California, College of Medicine, at Los Angeles, has united with the University of California, whereby it becomes the Los Angeles Medical Department of the state university. The work of the first two years will be at Berkeley, the student being allowed to take his clinical work either at San Francisco or Los Angeles.

5. The Cooper Medical College, beginning this fall, will be the Medical Department of Leland Stanford, Jr., University, located at Palo Alto, Cal. Three years of work in the liberal arts' department will be required for admission. The first three semesters of medical work will be given on the University campus at Palo Alto, the last five at San Francisco.

NIGHT TEACHING ABANDONED

Information has been received that the teaching of medicine to students attending only at night or after 4 o'clock p. m., has been abandoned by George Washington University and by Howard University, both located at Washington, D. C., and by Temple College Medical School at Philadelphia. This still leaves four medical night schools, three of which are at Chicago and one at St. Louis.

GRANTING OF ADVANCED STANDING

It is a rather deplorable practice, even with some of the supposedly better grade medical colleges, to allow advanced standing with little or no restrictions for work done in some of the medical schools known to be of extremely low grade, from night schools and even from schools not generally recognized by law as medical schools. It is quite encouraging, therefore, to note that an increasing number of colleges are limiting such advanced standing to those colleges which are of known merit.

NEEDS AS REVEALED BY THE INVESTIGATION OF MEDICAL COLLEGES

An investigation of medical education in the United States covering a period of five years and which included one or more personal inspections of each individual medical school, has revealed numerous defects in the teaching of medicine, some of which may be briefly stated as follows:

1. There are too many medical colleges in this country. As shown a years ago,[1] the United States has nearly as many colleges as the rest of the civilized world combined. The majority of them depend on the fees of students to pay their running expenses.

2. This has led to an active competition for students to an utter disregard of preliminary requirements, which has not only prevented the medical school from obtaining well-trained students, but has also hindered the development of the high schools, since students were and are still being admitted with only a grammar school education.

3. The medicine of 15 or 20 years ago is still being taught by a number of our colleges. Even that could be better taught if the students taking such work were required to have a preliminary training the equivalent of a four-year high school education.

4. The medicine of to-day, however, really requires of the student a more extensive and thorough preliminary training than is possible in the vast majority of our secondary schools. Experience has shown that this additional preliminary training for medicine should consist of at least one year's work in physics, chemistry and biology, and that a reading knowledge of German and French should also be required.

5. The medicine of to-day demands teachers rather than practititioners. For the fundamental medical sciences there should be not less than five or six instructors who have had special, thorough training in anatomy, histology and embryology, physiology, physiologic chemistry, pharmacology, pathology and bacteriology, and these men should be paid salaries sufficient to permit them to devote their entire time to teaching and research, unhampered by the necessity of keeping up an active practice for a livelihood.

6. In order to properly teach medicine to-day, medical colleges must have hospitals either owned by them or entirely under their control so far as the clinical material is concerned. This is one of the greatest needs of medical teaching to-day. Our medical students must come into closer contact with patients in hospital wards and dispensaries, where they should be given a systematic, careful training in writing histories, as well as in the methods of the clinical laboratory.

7. If the medical college is of high standard, hospital patients would be benefited by the presence of the students. The attending physician is going to be far more careful in his

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[1] The Journal A. M. A., May 16, 1908, page 1639.

examinations and treatment if he is being watched by a few keen witted medical students Again, even pay patients seldom object to examination by one or two students in the presence of the physician. In fact, in one hospital where free ward patients were regularly placed in charge of senior students under the direction of the attending physician, a number of patients asked to be given similar attention under the impression that their cases were not receiving as thorough investigation as the others, which may have been true.

8. In many instances our medical schools are run as medical "institutions," manned by busy practitioners for whom the college work is an insignificant side-issue, rather than as medical colleges in the hands of teachers, for whom the practice of medicine is no consideration except for those connected with the clinical chairs Even the occupants of the clinical chairs should be selected for their ability as teachers rather than because of their practice, or because they are on the attending staff of this or that hospital.

9. Another serious need is proper supervision, since a number of medical colleges have an abundance of clinical material, but for want of proper oversight are not taking advantage of it. A smaller amount of material carefully used is sometimes better than a large amount of material without careful supervision, since in the latter case the student is apt to develop superficial habits.

10. This supervision should also extend to keeping the buildings clean. The uncleanliness of the buildings and laboratories of some of our medical colleges makes one question the possibility of their teaching asepsis, or even ordinary cleanliness.

11. A number of medical schools have not yet adopted the recent methods of embalming anatomic material by which the work of dissection is much more agreeable. A larger number have not provided frozen cross-sections, prepared anatomic specimens, or other modern adjuncts which are so useful in the teaching of anatomy.

12. Medical education is but one of the departments of our general system of education, and should be brought into harmony with all other departments. The interests of all departments of education are mutual. What helps one should help all. Medical schools must depend on the high schools, colleges and universities to furnish the preliminary training for medical students The medical school might also obtain many valuable suggestions from the liberal arts' colleges in regard to supervision, standards of equipment and methods of teaching. On the other hand, if the medical college insists on high standards of preliminary education, it will aid and stimulate the work of the secondary school, college and university.

13. As already stated, there is much confusion in the standards of our secondary schools. To place the proper value on preliminary credentials, therefore, and to judge of a student's qualifications, requires expert knowledge which is not at present available for our medical schools. The provision for certificates from county superintendents or high school principals has proved to be very unsatisfactory. A number of eastern colleges and universities have solved the problem by requiring that their examinations be held by the College Entrance Examining Board It might be possible at least for the eastern medical schools to have the preliminary credentials of their medical students pass through the hands of that board.

14. There are a number of medical schools known as medical departments of universities which in point of fact have only nominal connection with such universities. In a few instances there is no real university of the name given, or else the university is made up of schools of medicine, law, dentistry and pharmacy without a liberal arts' department The majority of these are really independent medical schools, the university so called having no control over the standards of teaching, nor furnishing any financial assistance to its "medical department."

15 A medical school would be greatly benefited by becoming the organic medical department of a university which has a strong liberal arts' department By "organic" is meant where the medical school and its finances are controlled by the university trustees and where the educational standards are fixed by the liberal arts' department By such connections, made within recent years, it has been most interesting to watch the transformation of what might better be termed "medical institutions" into, what are in every sense of the term, "medical colleges."

16. Those medical schools which are honestly striving to teach medicine and which have the right ideals should receive endowment. It has been clearly demonstrated time and again that no medical school can demand the necessary entrance requirements, provide the expert all-time salaried instructors, install the thoroughly equipped laboratories and properly supervise the dispensary and hospital teaching without private endowment or state aid. Additional figures have been received during the past year showing that the cost of teaching a student in each of the freshman and sophomore years in the 25 or 30 leading medical schools ranges from $250 to $700 or more per year, while the tuition received from each student ranges only from $65 to $250 per year. To meet the necessary expenses of properly teaching medicine from students' fees is therefore clearly out of the question

17. After all that has been said in the last four or five years regarding the needs of modern medicine in money, salaried instructors, laboratories and hospitals, there are still a considerable number of colleges which, from students' fees, are able to pay all expenses and still have a snug little sum at the end of the year to "divide up" among the members of the faculty. And strange as it may seem, it is from these very colleges that we oftenest hear the plea for "the poor boy who wants to get an education" as an excuse for low preliminary requirements, and the question as to "who will practice at the country cross-roads and the back-woods districts" if a thorough medical training is insisted on.

18. There are several medical schools so called which are little else than quiz classes and which are run only to prepare their students to pass state license examinations Inspection shows they seriously lack equipment or make little use of what they have. Statistics show that "graduates" of these schools are able to pass the state license examinations, as they are now generally conducted, when graduates of better equipped colleges fail. This is an argument for the practical state license examination.

STATE LICENSE LEGISLATION AND REQUIREMENTS

Since a year ago several important changes have been made in medical practice acts or in board rulings governing the requirements for license to practice medicine.

1. The Ohio State Board, at its June, 1907, meeting, inaugurated practical examinations. Each applicant was called on by number during the written examination, in the presence of the entire class, to identify pathologic specimens and bacteria and to make a urine analysis. An extension of time equal to that required for the practical test was granted to those who were called from their written work. It required about 50 minutes for each of the 161 applicants to complete the examination, and the results were reported to be highly satisfactory. Massachusetts has added practical examinations

2. Rhode Island secured an amendment to the medical practice act requiring that each applicant for license must be "a graduate of a reputable medical college" This provides that no more non-graduates can secure license and also gives the board the right to refuse recognition to medical colleges which it considers not reputable. There remain only five states which still allow non-graduates to secure a license other than through reciprocity. These states are as follows:

Alabama
Arkansas
Massachusetts
Mississippi
Tennessee

3. Indiana has provided for an examination in the fundamental medical branches at the end of the sophomore year, this credit to be acceptable toward the examination for license after the four years in a medical college have been completed and the diploma conferred. This makes six states which at the present time have provided for the license examination in two parts. These states are:

Colorado
Indiana
Maryland
Michigan
New York
Virginia

4. In only one instance during the past four years has a state retrograded in its standards for medical licensure. This occurred during the last year in Oklahoma A bill for a strong practice act was introduced, but was so sadly riddled by the time it came through the Oklahoma legislature that it provides lower standards than were formerly enforced in the territory of Oklahoma.

5. In four states during the past year recognition was withdrawn from a number of medical colleges In Indiana from one college which has been closed, in Illinois from five, to all of which recognition has since been restored, in Missouri from two, to one of which recognition has been restored, and in Texas from two, both of which have been closed. In several

other states, while recognition was not withdrawn from colleges, considerable pressure has been exerted by the boards resulting in marked changes for the better.

CHARTERING OF COLLEGES

In only a few states is there any check on the incorporation or chartering of medical schools In most states any body of men by paying the required fee can incorporate as a college or university, often with authority to grant any degree under the sun. no question being asked as to the ability to furnish education of the standard generally supplied by the better colleges and universities And seldom is there any means of control over such institutions, even after they are incorporated.

MEDICAL SECTS

No such unchecked educational institutions are allowed to exist, so far as we have been able to learn, in any other country, and in no other country do medical sects abound as in this country. Besides the three or four legally recognized schools of medicine, we now have some 30 or more nondescript fads in a long procession, demanding legal recognition and representation on examining boards

FENCES WITH HOLES IN THEM

The trouble to day in our medical practice acts is that our legislatures make the fences high and strong, but then proceed by granting special privileges to this or that sect, to make large holes in these fences, through which many untrained pseudo doctors are annually admitted to practice on an unknowing and unsuspecting public.

THE LOGICAL REMEDY

The only logical position to take in the matter is, as has been done in a few states, to fix an educational standard by which all who wish to secure the license to practice medicine must comply. This standard should require a fair amount of preliminary education, which should be at least that of a four year high school course, and a thorough training of at least four years in a medical school, the first two years of which should be devoted largely to laboratory courses in the fundamental medical sciences, anatomy, physiology, pharmacology, pathology and the like, a knowledge of which is absolutely essential to one who is to differentiate between health and disease The last two years should be largely spent in the hospital and dispensary, in personal contact with the sick and injured, and should include a thorough training in the clinical laboratory If this standard is complied with, then grant a physician's license and let the holder practice as his educated common sense dictates

RECIPROCITY

Reciprocity, if wisely administered, is a commendable measure and a matter of justice to the old practitioner, who for good reason may be compelled to move to another state Misunderstood, however, or poorly administered, it may seriously lower medical standards It is still quite widely understood, even among state board members, that if one state has reciprocity with another it means that any doctor licensed by the one state must be accepted by the other, no matter how low the applicant's preliminary training was or from what college he may have graduated Of course, that idea is entirely wrong, since reciprocity provides that the license from another state may be accepted in lieu only of the written examination In all other respects the applicant should comply with the standard required by the law of the state in which he is trying to secure license, which standards it is the duty of the licensing board to enforce.

As usually provided in the state practice acts, reciprocity is a discretionary measure, licenses under that measure to be granted only when the board is satisfied that the applicant in every way comes up to the standard fixed by the practice act. It sometimes occurs that an applicant who has failed repeatedly before one board goes elsewhere and passes, then reapplies to the first board for a license through reciprocity. Several boards under such circumstances have very properly refused to issue licenses, and have demanded that such applicants pass their own examinations. Another board, that of Louisiana, has recently published a list of medical colleges which are considered satisfactory. and has barred graduates of all other schools from registration through reciprocity. Such procedure by the boards makes reciprocity in their hands a powerful influence for higher standards.

ADVANCES OF THE PAST YEAR

From the several advances mentioned, and doubtless others should be included, it will be seen that improvements in medical education in this country are being rapidly brought about The following sentences will briefly indicate some of the advances made during the past year

(a) Several state legislatures have made large appropriations for the opening of good high schools, and several organizations are actively working for the standardization of our secondary schools, colleges and universities

(b) Twenty nine medical schools by 1910 will be requiring two or more years of liberal arts' college work for admission.

(c) At least 50 medical schools by 1910 will be requiring one or more years of liberal arts' college work for admission.

(d) Practically all of the medical schools referred to expect to require preliminary work in college physics, chemistry and biology, and a reading knowledge of German or French

(e) Six State Medical Examining Boards have increased their requirements of preliminary education to one or two years of work in a college of liberal arts.

(f) Five important mergers have been completed during the year, replacing nine medical colleges by four stronger ones.

(g) Teaching medicine at night has been abandoned by three medical schools, and only four remain, three of these being at Chicago. and one at St Louis

(h) Practical examinations in addition to the written have been inaugurated by at least two examining boards: those of Ohio and Massachusetts

(i) One more state now requires that all applicants be graduates in medicine, leaving only five which license non-graduates.

(j) Six state boards have provided for a two-part examination, whereby applicants may take examinations in some of the subjects at the end of their sophomore year.

LOOKING AHEAD

While much remains to be accomplished, many of the problems are now more clearly defined and rapidly approaching a satisfactory solution Several strong forces are at work at these problems including the state examining boards and their confederations, the medical colleges and their associations, the American Academy of Medicine and others. Each organization is doing a work which can not be done by the others. Sometimes the efforts overlap, but should not be allowed to conflict There is certainly enough work for all, and they are all striving toward the same ideal, namely, the improvement of medical standards in the United States, until they are at least equal to those of our neighbors across the Atlantic.

(To be continued)

Medical Education and Nostrums, Ninth Letter

This is the ninth of a series of letters issued jointly by the Council on Medical Education and the Committee on Medical Teaching of the Council on Pharmacy and Chemistry:

To Medical Teachers—This letter contains some suggestions for the departments of pathology, bacteriology, state medicine and Medical economics *Pathology*—The study of many pathologic conditions demonstrates clearly that these can not be cured directly by any drug, and this is the proper place for emphasizing not only the absurdity but the danger of nostrums for which such cures are claimed. The so called cancer cures form a most striking object lesson, of which the rheumatic, gout and Bright's disease cures are but minor variations.

Bacteriology—The undoubted usefulness of antiseptics has been perverted by manufacturers until it may be questioned whether the proprietary antiseptics are not doing more harm than good The public as well as the profession, should be educated to effective protection against bacterial infection The injudicious advertisement of proprietary antiseptics, however, may easily become harmful by inducing an unjustified sense of security, thus belittling the importance of the natural protective measures, such as cleanliness and isolation (see Phenol Sodique The Journal, Nov. 9, 1907, p 1617). Many are more directly dangerous, in that their poisonous nature is not sufficiently emphasized, or is even specifically denied, by the manufacturer. Others are advertised to accomplish results which are inherently impossible. Deodorants have been praised as disinfectants. In many cases the cost per unit of efficiency causes an otherwise active antiseptic to be used in quantities so small as to render it useless.

State Medicine.—The profession, when it denounces self-medication, is commonly accused of self-interest The student should be thoroughly informed of its true motives, and this department may well emphasize the dangers to the public health arising from the prevalent use of the confessed "patent medicines"; the evil effects of the constant suggestion of disease symptoms in the advertising matter; the neglect of curable conditions until they have become incurable; the uncontrolled use of remedies, such as digitalis, mercury, or arsenic, which, in unskilled hands, are more potent for ill than for good; the creation of drug habits; the disguising of the poisonous nature of nostrums tending to serious and even fatal acidents; the "sampling" of active poisons where they may be found by children, etc. This would also be a proper opportunity to emphasize the fact that the use and endorsement of proprietary articles by the profession is the strongest advertisement of these articles to the laity, and that the profession can not expect the laity to take effective measures against these evils until the profession sets a worthy example.

Medical Economics.—This department should expand on the articles on Nostrums (Section 8 of Chapter II) of the Principles of Medical Ethics. The student should be advised that secret remedies have ever been condemned by the best element of our profession, and that their use forfeits the respect of both the profession and the laity. The warning against testimonials should also be emphasized.

Section 8 of Chapter II of the Principles of Medical Ethics reads: "It is equally derogatory to professional character for physicians to hold patents for any surgical instruments or medicines; to accept rebates on prescriptions or surgical appliances; to assist unqualified persons to evade legal restrictions governing the practice of medicine; or to dispense, or promote the use of, secret medicines, for if such nostrums are of real efficacy, any concealment regarding them is inconsistent with beneficence and professional liberality, and if mystery alone gives them public notoriety, such craft implies either disgraceful ignorance or fraudulent avarice It is highly reprehensible for physicians to give certificates attesting the efficacy of secret medicines, or other substances used therapeutically."

Society Proceedings

COMING MEETINGS

AMERICAN MEDICAL ASSOCIATION, ATLANTIC CITY, JUNE 8 11

American Academy of Medicine, Atlantic City, June 5 7.
Am Assn of Genito Urinary Surgeons, Pocona, Pa , May 31 June 1.
Am Climatological Association, Fortress Monroe, Va , June 4 5.
American Dermatological Association, Philadelphia, June 3 5
Am Gastro-Enterological Association, Atlantic City, June 7 8
American Gynecological Society, New York, May 27-29
American Laryngological Association, Boston, May 31-June 2
American Laryn , Rhin. and Otol Society, Atlantic City, June 3 5.
American Medico Psychological Assoc , Atlantic City, June 1 4
American Neurological Association, New York, May 27 29
American Orthopedic Association, Hartford, Conn , June 14 16
American Pediatric Society, Lenox, Mass , May 27-28
American Proctologic Society, Atlantic City, June 7 8
American Surgical Association, Philadelphia, June 1 3
American Therapeutic Society, New Haven, Conn , May 6 8.
American Urological Association, Atlantic City, June 7
Arizona, Medical Association of, Prescott, May 19-20
Arkansas, Medical Society of, Pine Bluff, May 18 21
Association of American Physicians, Washington, D C., May 11 12
Con of State and Prov Bds of No Am , Washington, June 4 5
Connecticut State Medical Society, Hartford, May 26 27.
Illinois, State Medical Society, Quincy, May 18 20
Iowa, State Medical Society, Dubuque, May 19 21
Kansas State Medical Society, Emporia, May 5-7.
Louisiana State Medical Society, New Orleans May 4 6
Maine Medical [illegible] Portland June 16 17
Maryland, Med [illegible] Baltimore, May 13 15.
Massachusetts Med [illegible] June 15-16
Missouri, State Medical Association, Jefferson City, May 18 20
Montana State Medical Association, Missoula, May 12-13
Nat Assn for Study and Prevention of Tuberculosis, Washington, D C , May 13 15.
Natl Con State Med Ex. and Licensing Bds , Atlantic City June 7.
Nebraska, State Medical Association, Omaha, May 4 6
New Hampshire, Medical Society, Concord, May 13 14.
New Jersey Medical Society, Cape May, June 23 25
North Dakota, State Medical Association, Fargo, May 11 12
Ohio State Medical Association, Cincinnati, May 5-7.
Rhode Island Medical Society, Providence, June 4
Texas State Medical Association, Galveston, May 11 13
Wisconsin State Medical Society, Madison. June 30 July 2.

THE AMERICAN SOCIETY OF TROPICAL MEDICINE

Sixth Annual Meeting, held at the United States Naval Medical School, at Washington, D C , April 10, 1909

Election of Officers

The following officers were elected for 1909 1910: President, Dr. William C. Gorgas, Ancon, Canal Zone; vice presidents, Dr William S. Thayer, Baltimore, and Dr Rudolph Matas, New Orleans; treasurer, Dr. Charles Lincoln Furbush, Philadelphia; secretary, Dr. John M Swan, Philadelphia; assistant secretary, Dr. Edward R. Stitt, Washington; councilors (to serve two years), Dr. Ramon Guiteras, New York, Dr. James Ewing, New York.

Dr. William S. Thayer, Baltimore, and Dr James M. Anders, Philadelphia, were elected delegates to the International Society of Tropical Medicine

Malaria, with Especial Reference to What Is Not Malarial Fever

DR JOHN PELHAM BATES, Nashville, Tenn , presented a clear and exhaustive paper on this subject, and drew the following conclusions: Malaria is an extremely simple disease, unless complications are present. In true malaria (with the patient at perfect rest), quinin will control all symptoms within five days. If not, death will be so prompt that there will be no time to hesitate over the diagnosis. It is important to remember the large number of infections that may be present along with an acute malarial infection. Lack of knowledge of this fact, accounts for the confusion in our ideas with regard to the course of malaria and its non amenability, in exceptional instances, to treatment. Finding malarial parasites in the blood is not the end, but the beginning of the diagnosis. When quinin fails to have a marked effect on the fever within from forty-eight to sixty hours, although parasites may be present, there is some complication; and when the fever is once reduced by quinin and there is again a rise of fever, the second rise is not due to malarial infection, but to an intercurrent infection manifesting itself late in the attack. In the presence of a marked leucocytosis, the idea of malarial infection should be abandoned, and search should be made for the real cause.

Report of a Case of Quartan and of One of Estivoautumnal Malaria

DR. JOHN M. SWAN, Philadelphia · The case of quartan infection was accidentally discovered in a patient admitted to the hospital for nephritis. The man had recently landed from Jamaica. His blood was studied, and found to contain a single generation of quartan parasites He had no chill, but his temperature was 99 4 F at 8 a m. on October 9 Seventy-two hours later the temperature was 100 4 F, without chill; at the next seventy-two hour period there was a chill, the temperature reaching 101.4 F. The nephritis was independent of the malarial infection The return of the dropsy, with chest pain, chills, cough and blood-tinged expectoration was unaccompanied by the recurrence of the sporulating parasites in the peripheral blood, and examination of bone marrow after death failed to show malarial pigmentation The second patient, a male, was admitted to the Polyclinic Hospital, complaining of hiccough. He had an intermittent temperature. No suspicion of malarial infection was entertained; but at autopsy the very large spleen suggested the nature of the disturbance, and smears made from the expressed spleen pulp showed a large number of pigmented macrophages and a fair number of deformed and partly degenerated parasites The lung seemed to be affected by hypostatic congestion On histologic examination a pneumonic consolidation was seen. The exudate was not that of a true pneumococcus infection

A Study of the Leucocytes in Tropical Malarial Infections

DR PAUL T. TALBOT, New Orleans · In the cases studied, the condition had been termed "tropical anemia." The patients all gave a history of ague; with relative white blood count, which showed an increase of the small lymphocytes, with an erratic form of plasmodium. A great amount of physical depression existed. Every blood disease has its own picture; and it is possible that there is some change in the leucocytes, not yet determined, that represents a certain organism or toxin. Ordinarily, the leucocyte count is a valuable aid in the diagnosis; these cases, however, showed the relative increase in the lymphocytes in the small, rather than in the large varieties. Sometimes the plasmodium was that of an estivoautumnal form. I concluded, therefore, that I was dealing with a different toxin, produced by a different parasite.

Discussion on Malaria

DR. W. S. THAYER, Baltimore: I was surprised that Dr. Bates should have stated that malarial parasites were not found in any greater number in the internal organs than in the peripheral blood. Not infrequently a moderate number of parasites is found in the peripheral circulation and an enormous number in the internal organs. There are occasionally cases of malarial fever in which no parasites can be found in the peripheral circulation, even with the most careful staining. I have seen cases in which tuberculosis exactly simulated malaria, but in which the blood showed no parasites. I have likewise encountered trichiniasis resembling malaria most markedly. The paroxysms were like those of estivoautumnal infection.

DR. C. G. BASS, New Orleans: I have seen a case similar to Dr. Swan's. After the patient had been in the ward three or four days, twenty grains of quinin were given to him by mistake. It was immediately stopped, when discovered. The plasmodia were absent the next day; and from that on, until a month and a half later. He had previously shown three crops of parasites. He died two months later, and at postmortem tuberculous peritonitis was disclosed. In a second case of quartan malaria the patient died within a short time after treatment, and showed markedly few evidences of malaria at the autopsy.

DR. W. S. THAYER, Baltimore: I saw a case of the obstinate type of quartan malaria in a man who had consulted Dr. Osler on account of recurrent chills. Dr. Osler did not think it one of malaria, but I examined the blood and found quartan parasites.

DR. C. G. BASS, New Orleans: In another case of quartan malaria, the patient showed an enlarged spleen and a triple infection, with three crops of parasites. At the end of three days the disease had yielded to quinin, but he was kept in the ward ten days more. The pathologist at the Charity Hospital thought he could recognize a different type of plasmodia in patients coming from Honduras, and has named it the Honduran malarial parasite.

DR. GEORGE DOCK, New Orleans: The old English idea of the greater severity and obstinacy of quartan malaria does not always hold good. An enormous number of parasites was found in Dr. Bass' second case, yet the patient had had practically no symptoms. In regard to the distribution of the parasites in the blood, the circulation does not go on as in a series of tubes without any outlet. In one case I was unable to find parasites in the circulating blood, yet found quantities on puncturing the spleen. I agree with Dr. Bates that most cases of malaria can be checked in forty-eight hours, and believe Dr. Osler's limit of five days to be too long. The microscope should be used, and, if necessary, the spleen punctured.

DR. O. T. LOGAN, Chingteh, China: In the case of the patient who recovered, mentioned by Dr. Bass, I think the recovery explained by the fact that our forefathers recovered from malaria before the discovery of quinin. In China several persons have come under my observation who did not believe in taking medicine. By simply remaining in bed they eventually recovered.

DR. W. P. CHAMBERLAIN, Jackson Barracks, La.: In studying malaria, I have found four patients who resisted the administration of quinin by mouth for four days, the rest yielding promptly to treatment.

(To be continued)

TENNESSEE STATE MEDICAL ASSOCIATION

Seventy-sixth Annual Meeting, held at Nashville, April 13-15, 1909

(Concluded from page 1351)

President's Address: Hippocrates, Past, Present and Future

DR. B. D. BOSWORTH, Knoxville, among other things, said that just sixty years ago came Morton, with ether anesthesia, and, a moment later, Oliver Wendell Holmes, with his clean-handed midwifery. All future years will hold in honored reverence such names as Sims and Sayre, Gross and Flint, Drake and Senn, and, last but not least, our own beloved Richard Douglas. Have we not withstood the ravages and decay of the inveterate ages? Is not our fame already blazing in letters of fire upon the pages of history? Have we not piled achievement on achievement mountain high, until the welkin rings with praise? Have we not reduced the mortality of typhoid fever to 2 per cent., and its average duration to fourteen days? Have we not sounded the death knell of the Klebs-Loeffler bacillus, and many others, with antitoxin and serotherapy? Yellow fever, as a slimy serpent, has been driven back to her pestilential swamps to perish amid her own pollutions, and our nation thus enabled to triump over all the principalities of the earth in the assured success of her momentous undertaking to connect two oceans by means of the Panama Canal. Have not our surgeons and gynecologists attained a degree of knowledge and skill little short of the supernatural?

We live in an age of great possibilities, perhaps the greatest the world has ever known.

Cancer of the Breast

DR. GEORGE R. WEST, Chattanooga: The *x*-ray is unsatisfactory in the treatment of deep-seated cancer. The serum treatment is uncertain. These are simply will-o'-the-wisp methods which defer cases until too late for radical operative procedures to be undertaken. There is no palliative means for the cure of cancer, and cancer of the breast is so located that it can be early and thoroughly removed and the patient positively cured by operative procedure; it is unnecessary and unscientific to wait, when the diagnosis is positive, before we advise surgical interference.

DISCUSSION

DR. CHARLES P. MCNABB, Knoxville: I wish to call attention to a series of experiments that were conducted by Moore, of England, in reference to cancer occurring in other parts of the body than the stomach. It occurs in 65 per cent. of the cases. These experiments show a greatly diminished amount of hydrochloric acid in the stomach in cases of cancer occurring in other parts of the body than the stomach.

DR. J. A. WITHERSPOON, Nashville: I have found that the old idea that hydrochloric acid is completely absent in gastric cancer, and that lactic acid alone is present, is an error. I have investigated cases and found not only traces of hydrochloric acid in the stomach, but sufficient to have carried on partial digestion, so that I do not believe that the old teaching of text-books in reference to complete absence of hydrochlorid acid in cases of gastric cancer is correct.

DR. WILLIAM LITTERER, Nashville: Dr. Witherspoon is correct in stating that hydrochloric acid is not necessarily absent in gastric cancer. Pernicious anemia will give the same condition. Cancer in other parts of the body than the stomach will cause diminution of hydrochloric acid, sometimes a complete absence, with the presence of lactic acid to such an extent as we find in gastric carcinoma. In gastric sarcoma there is almost the same clinical picture as in gastric carcinoma.

Amebic Dysentery and Appendicostomy

DR. JOHN PELHAM BATES, Nashville: Amebic dysentery is not an uncommon disease in the southern portion of the United States. The amebas are probably a secondary or accidental infection on a primary inflammation present in the large intestine; that is, as long as the mucous membrane is normal the amebas can not find lodgment. In this paper I review the pathology of amebic dysentery, its complications and sequelæ. In treatment, the best results are obtained by irrigation with normal salt solution and followed by quinin injections from 1 to 3,000 to 1 to 1,500. There should be absolute rest and a milk diet. Bismuth is harmful in amebic dysentery, in that it covers over the ulcers, *making it impossible to clean them or to reach the amebas by irrigation.* Of 12 patients treated by appendicostomy 6 died; 3 patients who recovered were lost sight of, and 3 returned to the hospital with recurrent amebic dysentery. *Appendicostomy is not to be advised until it is clear that palliative treatment is found to be of no avail. A large percentage of the cases treated by appendicostomy will recur.*

DISCUSSION

Dr. Robert Caldwell, Nashville: I do not think we can treat this disease by rectal irrigations satisfactorily. Amebic dysentery, like all other diseases, varies, in that some cases are mild, and the patients recover practically without any treatment, while others are more intractable from the outset. Each patient must be treated individually. *Granting that we can irrigate the cecum by rectal irrigation, I doubt if we can do so successfully; it must necessarily be imperfectly done. We should not wait until the patient is nearly moribund before doing appendicostomy. A timely appendicostomy will greatly relieve, if not cure, a number of these patients.*

Dr. Fenton B Turck, Chicago: *It is impossible to reach and get rid of all the amebas by the use of any chemical agents.* The amebas are carriers of bacteria, and experimentally it has been impossible to exclude bacteria which are taken up by the amebas, and carried into tissues and there produce their effect in ulceration and even perforation in some cases.

Dr. A. B Cooke, Nashville: Dr. Bates reports a series of 12 appendicostomies, with 6 deaths, and 50 per cent. of recurrences in those who survive. Those who have done a considerable number of appendicostomies *in other portions of the* United States, eliminating for the moment the results obtained in the Canal Zone, have an operative mortality of zero from this operation I have talked with various men who have done this operation many times, and have not known any one of them to report a single death from the operation The fact that these patients die from the operation is because they are reserved for it until they are practically dead.

Dr. Richard Barr, Nashville: To speak of appendicostomy as a method *of treament of dysentery is an absurdity. Appendicostomy is no treatment in itself.* It is the making of an *opening for treatment.* Appendicostomy is simpler than appendectomy. It is *necessary to resort to other measures* of treatment after appendicostomy *to get results.*

Dr *J. A. Witherspoon, Nashville:* I believe that if general practitioners would examine *the fecal discharges* or the mucus from all cases of *chronic diarrhea,* wherein blood is seen in the stools, a very large *percentage* of them would be found to belong to this type of dysentery. *I feel that the* majority of these patients can be treated as well by irrigation in the old fashioned way as by appendicostomy. We have no assurance, after appendicostomy has been *done,* that the patient will not have a relapse or recurrence, as they do *by* the old method.

Membranous Croup

Dr. G. E. Vaughan, Clarksville: The name membranous croup is misleading, from the fact that it fails to indicate the true character of the disease, and has no reference to its cause, which is generally admitted to be the Klebs Loeffler bacillus. Simple diphtheria, or, to be more specific, diphtheritic laryngitis, would be a more appropriate name. It is important to make the diagnosis early in membranous croup, as the administration of antitoxin to be most effective should be given early, within the first forty-eight hours, and in large doses, say from 4,000 to 5,000 units. If dyspnea should continue, intubation or tracheotomy should be done. By following these methods membranous croup will be robbed of its mortality to a great extent. Except for the fact that men with extensive experience with children say that only very rarely is it necessary to intubate in acute catarrhal laryngitis, and also from the fact that membranous croup yields so readily to antitoxin, I would be constrained to believe that cases reported have been instances of acute catarrhal laryngitis, but I am compelled to believe they were cases of laryngeal diphtheria or membranous croup.

Physiologic Laws Governing the Action of Purgatives

Dr George E. Pettey, *Memphis:* The sympathetic nerve centers *control the secretory and motor* activity of the intestinal canal. Disease impairs *the* activity of these centers, resulting in deficient secretion and motion. To arouse these functions four modes of procedure are available. These are *chemical, mechanical, electrical* and physiologic stimulation Two *of these* are direct, two indirect or reflex Direct stimulation *arouses all* the cells in the centers to action, indirect stimulation, *only* a part Reflex response to local irritation *is local and only* affects the structures from which the irritant impression came. The same law governs the generation and transmission of sympathetic motor impulses that govern the circulation of the blood Local irritation begets local motion *only. Chemical* stimulation, which is necessarily local, is an unreliable and inefficient means of arousing motor activity of the intestinal canal. It reaches with great difficulty all the structures from which motor response is desired. Direct stimulation is much more efficient and dependable.

Leukemia, *with Report of a Case*

Dr. R. J. McFall, Cumberland City: Leukemia is an *affection of the* spleen, bone marrow, or lymphatics, with a persistent increase of leucocytes. There are two main types, namely, splenomedullary and lymphatic. We know not the conditions under which it develops None are exempt. The affection is most often observed in males. There are dropsy, polyemia and blood clots in the heart and veins. In the former the spleen is greatly enlarged, adherent to the stomach wall, diaphragm or stomach. The *marrow* is involved In the lymphatic variety there is a general enlargement of these glands; also of the liver at times. The lungs are usually unchanged. In the kidneys the reverse obtains. The onset is slow. There is enlargement of the stomach, shortness of breath, enlarged glands, pallor or palpitation, which may cause the patient to seek relief There is usually anemia, hemorrhage, nausea, vomiting, diarrhea. The pulse is rapid, soft; cardiac and nervous symptoms are rare. There is an excess of uric acid. There is often priapism. Fever is slight A certain diagnosis can only be made by the microscope Occasionally recovery takes place.

DISCUSSION

Dr Battle Malone, Memphis: The first thing we should do, when we see a case of splenomegaly, is to have a blood count made, and usually a blood count is all that is necessary to make a diagnosis I do not think we are ever justified in considering or in doing an operation in a case of enlarged spleen until we have the blood count before us In a case of splenomedullary leukemia any operative procedure is absolutely contraindicated, as the mortality from operations in these cases is about 99 per cent Some of the other types of enlarged spleen should be operated on, as, for instance, malarial hypertrophied spleen In the majority of these cases, or in over 80 per cent., the patients, when operated on, recover

Dr. W S Lawrence, Memphis: In the treatment of splenomedullary leukemia the Roentgen ray gives *brilliant* results It is one treatment which should be *tried* before any other.

Dr William Litterer, *Nashville: I* have *seen several* cases in which marvelous results, although not curative, were obtained by the use of the *x* ray.

Dr J. Hugh Carter, Memphis. The first essential in leukemia is to make a diagnosis, and after it is made we can pursue one of two courses, namely, medical or *surgical* treatment, according to the nature and type of the case.

Dr. R J McFall: I have had no experience with the *x* ray. I find, however, that there is as much *evidence against* it as there is for it. According to the mortality *reports,* these patients die shortly after the use of the *x* ray *the same as* from other methods of treatment.

Appendicitis

Dr. J. Hugh Carter, Memphis: All agree that in the acute or non-suppurative form we should operate at once. In the suppurative form each case is a law unto itself, and must be treated accordingly. There is no rule which we can apply to all classes of cases. In the acute gangrenous or ulcerative form, if the patient is seen in the first four or six hours, operate at once; if not, treat by the expectant plan, or the Ochsner treatment. After an abcess has formed, open and drain without removing the appendix, unless the appendix can be found easily, then only ligate and drain. With a retro-appendiceal abscess causing obstruction, the appendix should be removed, and a counter drain used. In all cases do not flush out the abdominal cavity, but wipe out with wet gauze sponges. We should only use drainage when we know pus is in the cavity. After all, it means good judgment when we have entered the abdominal cavity.

Intestinal Obstruction

Dr. J. W. Brandau, Clarksville: Strangulation is the most frequent cause of acute intestinal obstruction, and may be due to bands or cords, the result of peritoneal adhesions, which may be found in any part of the abdominal cavity. Intussusception is the rolling of one portion of the bowel into the lumen of another. A patient having undoubted intestinal obstruction, and who is not relieved by a full dose of castor oil, or other simple but efficient laxative, with the aid of a large enema given in the knee-chest position, should at the earliest possible moment be given the benefit of surgical procedure. No physician would recommend the administration of purgatives or the prolonged use of enemata in a case of strangulated hernia. The mortality increases as operation is postponed, as is shown by the following table by Sargent, quoted by Moynihan: Operated on first day, mortality 37 per cent.; operated on second day, 39 per cent.; operated on third day, 61 per cent.; operated on fourth day, 67 per cent.; operated on fifth day, 73 per cent., and operated on sixth day, 75 per cent. The experience of all operators coincides with this, and the imperative necessity of early diagnosis and early operations are universally admitted. A mortality of over 10 per cent. is the mortality of delay.

DISCUSSION

Dr. John A. Gaines, Nashville: Early diagnosis and operation are the most important features in dealing with intestinal obstruction. Any obstruction coming up measurably acutely, in the absence of fever, or associated with symptoms of shock, depression, subnormal temperature, and local tenderness, can be separated distinctly from inflammatory conditions arising from appendiceal and other acute inflammatory conditions. All these conditions, in which we are able to exclude fecal impaction, are surgical from the beginning.

Dr. L. E. Burch, Nashville: If we are in doubt as to the diagnosis of intestinal obstruction, the most important thing is *not to give a purgative. This not only applies to intestinal* obstruction, but to any lesion within the abdomen. If we are in doubt whether a patient has intestinal obstruction, ruptured appendix, or a beginning peritonitis from a leaking pus tube, we should not give anything by the mouth. Put the patient in the Fowler position, or elevate the bed, give enemas, and the best enema to use is the drip enema of Murphy. Avoid all food and all water, and, above all things, avoid morphin. Take the mechanical form of intestinal obstruction, which only comprises 28 per cent. of the cases, and in every case an immediate operation is demanded.

Dr. Jere L. Crook, Jackson: It is not easy to make an exact diagnosis in a case of mechanical obstruction of the bowel, whether due to a band or to the presence of some foreign body, and in those cases in which we are in doubt it is better to make an exploratory incision.

Dr. Charles P. McNabb, Knoxville, related a case of spontaneous cure of intestinal obstruction.

A Comparison of the Various Tuberculin Tests in the Early Diagnosis of Tuberculosis

Dr. William Litterer, Nashville, after discussing the preparation of tuberculin, Koch's old tuberculin, tuberculin precipitate, the subcutaneous test, method of administration, the reaction, the von Pirquet cutaneous reaction, etc., drew the following conclusions:

1. The different results obtained by different workers depend on the employment of solutions of varying strengths as well as defective technic in their preparation.
2. In the conjunctival test, if proper technic, proper preparations be used, and the proper selection of cases is made, there is practically no danger in its employment.
3. In pyrexial cases the subcutaneous injections are not applicable, while the superficial tests can be used without affecting their diagnostic value.
4. Cases without symptoms which react should be regarded as a danger signal and not a condition demanding active treatment.
5. It is generally believed that a delayed integumental test and a negative conjunctival reaction mean a healed tubercle. The superficial tests are valuable from the standpoint of prognosis of manifest tuberculosis. A negative or delayed reaction indicates a serious sign. A prompt and vigorous reaction points to a much more favorable prognosis. All the above signs, however, may fail.
6. The subcutaneous test is somewhat more reliable than the integumental and ocular tests. I am becoming more impressed with the Moro test than any of the newer ones.
7. To obtain the best results from tuberculin from a diagnostic standpoint, I would advise the use of the three superficial tests, namely, eye, cutaneous, ointment, be applied on the same patient at the same time, and if any doubt exists as to their interpretation, then follow it with the subcutaneous test.

Primary Malignant Tumors of the Osseous System

Dr. W. A. Bryan, Nashville: I believe that every case of sarcoma of bone demands at the very earliest period a total excision of that bone or amputation at the upper limit of the bone. The only exception I can see to this statement is in certain cases where it is considered ill-advised to amputate at the hip joint and when the patient's chances for recovery from the operation would be better if a lower amputation should be done, but we should always remember that the closer to the tumor we go, the greater the chance of recurrence. The other exception is in those cases in which the tumor appears in a bone that cannot be spared, and these, I think, are almost invariably hopeless, and I doubt seriously whether it is worth while to operate at all after the tumor is well developed. Three times within the last eight months I have removed sarcomata, the largest of which was smaller than a malaga grape, and none of them showed any evidences of malignancy. None of these was osteosarcoma, which is more difficult to recognize. It was only after incising the tumors that my suspicions were aroused as to their malignancy, and the suspicion was confirmed in each instance by a microscopic examination. One of them was a small nodule in the testicle, found accidentally while I was operating for another condition. The patient's physician had suspected the presence of sarcoma and told me so. In the second case a small knot on the leg not larger than a bean was removed and was found to be a fibroid tumor, on the inside of which there were sarcomatous cells. The third one I removed from the lobule of the ear. It was slightly smaller than a grape, and proved to be sarcoma. *The point I wish to emphasize* is that the suspicion of the medical profession should be aroused when a tumor is seen, and that tumor should be removed on general principles before it has had any opportunity to cause any mischief. Furthermore, I wish to lay stress on the point that sarcoma is not nearly so rare a condition when the microscope is called to our aid as many of us imagine.

Inoperable Tumors Successfully Treated by the X-Ray

Dr. W. S. Lawrence, Memphis: I give considerable latitude to the term inoperable. First, it will cover those cases in which an operation would mean certain, or almost certain, death to the patient. Intrathoracic tumors serve as an example of this class of cases. Second, it is used to refer to those cases in which recurrence has taken place after one or more operations, and in which further operation is considered inadvisable. Third, it will mean those cases in which the site of the tumor is such as to render its surgical removal mutilating and disfiguring, and therefore extremely undesirable. Malignant growths about the eyelids, nose and mouth are examples. I have had cases coming under each of these heads. The first case was one of intrathoracic tumor. The second case began as an endothelioma of the external auditory meatus, but later involved most of the tissue of the outer ear and parotid gland. X-ray treatment was very beneficial in both of these cases.

Rational Drug Therapy

Dr. E. R. Zemp, Knoxville: Therapeutics is the keystone to the arch of medical science. *It is the one branch to which* all other branches must come for help. Many of its inefficiencies are due, not to the impotency of drugs, but to a failure to master its principles. Improper teaching and later neglect in its study are responsible for many of its shortcomings. Rational drug therapy is impossible without a knowledge of the physiologic action of drugs. The use of proprietaries continually makes us hopeless cripples; routine prescribing is no better, as in both we lose sight of the fact that it is the patient and not the disease that needs attention. Erroneous ideas concerning drugs are numerous. The therapeutic nihilist is as pitiful as the therapeutic egotist is ridiculous. After years of vain efforts to discover other therapeutic means better than our drugs *a great revival wave is sweeping over the* profession, and we who believe in them are coming into our own.

Indications for Surgical Intervention in Peptic Ulcer; Choice of Operation

Dr. John A. Gaines, Nashville: *The classification of peptic* ulcer therapeutically must needs be arbitrary, and subject in the early stages to conditions of more or less experimental tests, *or dealing with accidents of greater gravity*. The non-indurated ulcer is purely a medical disease, and only the occasional complications, as hemorrhage, if persistent, or perforation, make it a surgical disease. It is not possible to diagnose such an ulcer with any degree of accuracy at first, and when suspected a medicinal and dietetic regimen should be followed. All early ulcers should be regarded as medicinal for a reasonable time. I hold that any recognized ulcer not yielding to rest in bed, with proper medicinal and dietetic treatment in from six to eight weeks at most, should be considered as a surgical disease even without the development of accidents or threatening symptoms. The ideal surgical treatment is by gastrojejunostomy with or without dealing directly with the ulcer, as recommended by Mayo.

Lung Puncture as a Therapeutic Measure

Dr. T. J. Coble, Shelbyville: This line of treatment is indicated when we have a hypostatic condition or a hepatized lung following pneumonia, when there has been a faulty resolution and a failure on the part of Nature to clear up the lungs. It is especially indicated in an asthenic patient who is very weak and much debilitated. Puncture is preferable to blisters in these conditions; *first, because it is more certain and much* quicker, for the reason that this is a chronic or a subacute inflammation, and to hope to get resolution is by increasing the blood supply, or develop an acute inflammation out of the chronic, and thereby stimulate Nature to complete its work. Second, the puncture is practical, without pain, or danger to the patient. Third, with puncture the irritation is in the lung, the seat of the disease, and with the blister it is on the chest wall, and does not increase the blood supply where it is needed. Fourth, after the puncture of the lung, resolution usually takes place in from three to ten days, and the patient is relieved of the necessity of taking the nauseating absorbent mixtures that are usually prescribed.

Surgical Types of Abdominal Tuberculosis

Dr. W. D. Haggard, Nashville: The intestines and pelvic organs are the strongholds of the disease. The duodenum and stomach are peculiarly immune. In 25 per cent. of cases the tuberculosis gains entrance through the intestinal mucosa. In children the intestines are most frequently affected, and in adults it occurs from uncooked milk and infected food. It is marked by griping pains, diarrhea, with *blood*, emaciation and tenderness. The ulcer often results in stenosis. Localized ulcers should be excised. Chronic obstruction requires surgical intervention. Ileocecal tuberculosis is the most frequent. Ulcerative and hyperplastic types are considered. Illustrative cases, with localized abscesses, are reported. Tuberculosis of the omentum and appendix adherent in a hernial sac are considered. Chronic peritonitis is usually tuberculous; it may be encysted. It usually comes from the Fallopian tubes, which should be excised. Mild cases with ascites are most favorable. Simple exploratory laparotomy often cures, but the focus of infection, whether in the tubes or appendix, should be removed. The ulcerative and fibrous types are extremely unfavorable. Abscess of mixed infection is almost hopeless. Epigastric tumor of the thickened omentum is characteristic of the chronic form of the disease. Tuberculin is an important diagnostic aid.

Cancer of the Stomach

Dr. Charles P. McNabb, Knoxville: In my paper I emphasize the following points: First, in rectal feeding we should arrange the enemata to get the greatest number of calories from the smallest number of cubic centimeters of enemata. Second, the colon will not tolerate rough usage, and more than 300 c.c. should never be given in one enema. Third, it takes not more than from four to seven days for acetonemia to develop, if less than 50 grams of carbohydrates are taken into the system daily, therefore, from 50 to 75 grams of starch and from 15 to 30 grams of grape sugar dissolved in 300 c.c. of water, or peptonized milk, must be given each 24 hours. Fourth, a patient with pyloric stenosis suffers much from thirst, and not less than 1,500 c.c. of water in some form should be injected every day. Fifth, the addition of common salt makes all kinds of enemata much more absorbable by the large intestines.

Other Papers Read

The following papers were also read:

"*Intubation and Antitoxin Treatment in the Worst Forms of* Laryngeal Diphtheria," by Dr. J. M. Troutt, Jackson; "The State Sanatorium in the Prevention and Cure of Tuberculosis," by Dr. Dora Lee Wilder, Knoxville; "Epidemic Cerebrospinal Meningitis," by Dr. J. Overton, Nashville; "Microscopic Findings in a Case of Coccidioidal Granuloma of the Meninges," by Dr. Newton Evans, Nashville; "The Extraction of the Opaque and Partially Opaque Lens in the Capsule," by Dr. L. B. Graddy, Nashville; "Treatment of Myocardial Insufficiency," by Dr. David R. Neil, Nashville; "Diagnosis and Treatment of Eczema," by Dr. J. M. King, Nashville; "Congenital Calculus in the Prostatic and Membranous Urethra of a Seven-Year-Old Boy," by Dr. W. D. Sumpter, Nashville;

AMERICAN ASSOCIATION OF PATHOLOGISTS AND BACTERIOLOGISTS

Ninth Annual Meeting, held in Boston, April 9-10, 1909

(Concluded from page 1352)

A Postmortem Study of Status Lymphaticus in Adults and Children

Dr. Charles Norris, New York, presented *elaborate statistical tables dealing with the external appearances* and internal findings in these cases.

Anaphylaxis

Drs. M. J. Rosenau and John F. Anderson, Washington, D. C.: No substance has been found of practical value in preventing anaphylaxis when given before serum injection. Different proteid substances are absolutely specific. Heat causes no appreciable loss of toxicity. The sensitizing and toxic principles are probably the same. Heat has practically no effect on sensitizing properties of substances. One guinea-pig was found susceptible 1.100 *days after sensitizing*, indicating that this condition exists during the remainder of the animal's life. Experiments now under way indicate that the toxicity *of horse serum is increased by the* addition of serum from sensitized pigs.

Neurophysiologic Effects of Anaphylactic Intoxication

Drs. F. P. Gay, E. E. Southard *and J. G. Fitzgerald*, Boston: These experiments were undertaken to *determine the* best line of histopathologic attack in testing the toxicity of serum. One of the points determined was that injections into the brain are not so toxic as those into the spaces *surrounding* the brain. An important point brought out is that suppositious antibodies are in the cells of the nervous *system*. Work in the future is to be along this line.

Attempts to Determine by the Reaction of Fixation Specific Racial Differences in *Human* Blood

Dr. John G. Fitzgerald, Boston, detailed experiments with the blood of Caucasians, Japanese and negroes. The results do not warrant the assumption that reaction of the blood is sufficient to differentiate races of people. The forensic value of such proceeding is practically *nil*.

Localized Anaphylactic Intoxication in Human Beings Following Repeated Injections of Diphtheria Antitoxin at Short Intervals

Drs. W. P. Lucas and F. P. Gay, Boston: Necrosis at the site of the first injection can be induced in animals by succeeding doses of serum. To determine the effect in human beings, the findings in 1,000 children in certain hospitals were tabulated. These children as a routine measure received 1,500 units of antitoxin on admission and at regular intervals as long as they stayed. Some in the list received as high as six doses. In the 1,000 first injections there were no local reactions and only three slight general.

Of 281 second injections, 26 reacted, 61 per cent. being local
Of 103 third injections, 15 reacted, 86 per cent. being local
Of 36 fourth injections, 13 reacted, 84 per cent. being local
Of 25 fifth injections, 12 reacted, 91 per cent. being local
Of 15 sixth injections, 11 reacted, 91 per cent. being local

This demonstrates an analogy between serum anaphylaxis in animals and serum diseases in human beings.

DISCUSSION

Dr. John F. Anderson, Washington, D. C.: Was straight horse serum used for the injections? In one series of 480 boys precipitated antitoxin, with 23 per cent. total solids, was employed in some cases and local reaction, even to a purple area the size of a saucer, developed in some of the subjects. This reaction might be due to the solids.

Dr. Gay: Horse serum only was employed.

Specific Chemical Prevention and Treatment of Syphilis in Macacus Rhesus

Drs. Simon Flexner and B. T. Terry, New York: It is now comparatively easy to produce in monkeys the primary lesion of syphilis; but this can be prevented by local measures, such as the use of 2 or 3 grains of atoxyl. After a visible syphilid has appeared, such measure is also effective. These animals are not protected against subsequent inoculations, those in which the disease is arrested as late as fifteen days after the primary lesion is started being subject to further inoculation just as are normal animals. In other experiments, inoculated animals were subjected to treatment six months after the production of a lesion. Two drugs may be used, acetoatoxyl and a mercuric salt of atoxyl. The lesions in an animal yielded, partially at least, very quickly to acetoatoxyl. The effect was controlled by the serum test, the reaction being very slight after the first doses had been given. Recently the test has become positive, hence the animal is not yet fully cured. In an animal which survived two weeks after treatment by the mercuric salt of atoxyl, the lesions receded somewhat. This salt is extremely disagreeable to use because of the terrific reaction in the tissues induced by it. In addition to the local reaction there was also stomatitis and abscess of the parotid. This would probably make its use in man objectionable.

The Action of Soaps on the Pneumococcus

Drs. Simon Flexner and R. V. Lamar, New York: The object of these experiments was to determine if physically changing the pneumococcus will render it more subject to serolysis. It is subject to soap lysis, there being slight changes in outline after being thus treated. If equal quantities of treated and untreated cocci were injected into the peritoneal cavity of rats, all died. In the case of the treated cocci there was a greater emigration of leucocytes into the peritoneum but no more phagocytosis. There was no great change from these results when serum was added, but with antiserum and soap cocci, death did not occur. The physical state of the cocci appeared so altered by the soap that when antiserum was added, serolysis was more active. Experiments now under way indicate that this action may be accomplished by soap after cocci have come in contact with albuminous materials.

Amboceptors Concerned in Fixation of Complement and in Bactericidal Tests (*in Vitro*)

Dr. John C. Torrey, New York, detailed experiments made with the object of clearing up the obscurity due to the diversity of substances concerned in these processes.

Intravenous Injection of Heterologous Blood Serum

Drs. Leo Loeb, Lucius Tuttle and A. Strickler, Philadelphia: Experiments made to determine what kills the animal in these cases indicate that dog serum kills by causing hemolysis, ox serum by agglutination.

Increased Bactericidal Activity of Phenol Solutions Due to the Addition of Sodium Chlorid

Drs. W. S. Lemon and J. S. Laird, Toronto: The results of a large series of tests indicate that within certain limits the effect of salts in solution is an osmotic one. A point to be emphasized is the use of a machine lift in measuring bacteria employed, the ordinary method of lifting them by hand being inaccurate

A Probable Cause of Liquefaction of Gelatin in Preservation of Specimens by Kaiserling's Method

DISCUSSION

Dr. Lawrence J. Rhea, Boston: In mounting specimens by this method, from 20 to 30 per cent. loss by liquefaction of the gelatin is the rule. Observation has shown that specimens of acute inflammatory conditions, as lobar pneumonia, are most often involved. In one specimen of carcinoma of the hand the gelatin was firm except immediately over the area of the tumor. As the presence of enzymes in inflammatory tissues have been shown by various observers, it was suggested that these enzymes might be responsible for the liquefaction of gelatin. To decide this, pieces of the tissue were incubated with gelatin and digestion occurred; gelatin alone did not undergo digestion. When formalin was added, digestion did not take place. Hence the liquefaction of gelatin is explained by the presence in the tissues of enzymes. Formalin may inhibit but does not destroy these enzymes.

Acute Hemorrhagic Pancreatitis Due to a Ball-Valve Calculus in the Opening of the Diverticulum of Vater

Dr. J. J. Mackenzie, Toronto: The specimen exhibited was obtained from a man of 54, who for three years had had attacks of gallstone colic and had passed gallstones from the bowel. At autopsy a gallstone was found in the ampulla, in a sac 2.5 cm. long. The border of the opening of the ampulla was very thin and firm, indicating that the passage of stones had injured the boundary of the valve.

Sporothrix (?) Isolated from Two Horses with Epizootic Lymphangitis

Drs. Calvin G. Page and Langdon Frothingham, Boston: The specimens shown were obtained from swabs or tissue taken from horses in western Pennsylvania, where, in 1907, there were cases of this affection which has been almost entirely confined to foreign countries. Clinically, the affection resembles glanders. The organism grows in the form of budding spores from the ends and sides of filaments. Rats and mice are susceptible to inoculation, rabbits and guinea-pigs are more resistant. A similar organism has been described by Hektoen and others. Cases have been called sporotrichosis but classification is not certain. From the findings in these cases it may be that sporotrichosis and epizootic lymphangitis are identical.

Case of Actinomycosis Improving Under Vaccine Treatment

Dr. F. N. Whittier, Brunswick, Me.: A farmer of 26 developed a growth at the angle of the ribs on the left side. A specimen examined after operation contained yellow granules which under the microscope proved to be actinomyces. Cultures were grown aërobically on ordinary culture media and vaccine treatment was suggested. This was begun, though difficulty with the clumps was encountered in preparing the vaccine: they were finally ground. A dose of from 50 to 100 millions was used, malaise and slight rise of temperature following injection. The patient's opsonic index has risen from 0.58 to 1.34 and his weight from 136 to 166 pounds. A question as to the organism in the cultures being the same as that in the pus may arise, but from the appearance and the results I believe it is.

Treponema Pallidum in Syphilitic Aortitis

Dr. J. H. Wright, Boston, exhibited specimens from 3 cases in which the treponema was found in the wall of the aorta. In one case, large numbers were found immediately beneath the intima in necrotic tissue. In a second they were fairly numerous in the necrotic fibrous tissue of the intima, in the third they were very few and were found only after a long search. In morphology the organisms are identical with the treponema pallidum. Dr. Wright had found the treponema in about half the cases of suspected syphilitic aortitis. In only two of the cases was the time of the syphilitic infection known; in them it was sixteen years before the aortas were obtained.

A Study of Tubercle Bacilli in Milk and Feces

Dr. V. A. Moore and W. H. Boynton, Ithaca, N. Y.: Many conflicting statements have been made regarding the presence of tubercle bacilli in the milk and feces of cattle. Some say that 40 per cent. of infected cattle excrete the bacilli in their feces, others give a much lower percentage. In general, one would be led to believe from current literature that there is the possibility of the inferior grades of milk put on the market containing many tubercle bacilli. Two important questions arise: 1. How frequently are tubercle bacilli found in the milk from supposedly sound cattle? 2. What importance is to be attributed to these bacilli when found? We have examined (1) the mixed milk from herds in which all animals reacting to tuberculin had been removed, leaving therefore only apparently healthy cattle; (2) the milk from individual cows; (3) the feces from individual cows. The mixed milk of 47 different herds was examined. Of these the tubercle bacillus was found, microscopically, by the sedimentation method, in one sample. Guinea-pig inoculation revealed the bacillus in two others, or a total of 3 out of 47 samples. Of 87 samples from individual cows, no tubercle bacilli were found in 85. In the other two, the cows had hard "bunches" in their udders, though not supposed to be tuberculosis: in their milk were enormous numbers of tubercle bacilli. Hence in 134 examinations of milk, tubercle bacilli were found in 3 samples of mixed milk and in 2 of individual milk from cases of udder disease. Acid-fast organisms were found in 2 other samples but caused no disease in guinea-pigs. Of feces, 36 specimens were examined and none contained tubercle bacilli; acid-fast organisms were found in one or two but gave no results from guinea-pig inoculation. We conclude, therefore, that tubercle bacilli are not found in the feces of animals unless they possess open lesions. Tubercle bacilli are rarely in the milk of cows unless there are tuberculous lesions of the udder. There is no justification in the prevalent statements regarding the widespread occurrence of tubercle bacilli in the milk from cattle which show no evidence of disease.

DISCUSSION

Dr. Robert N. Willson, Philadelphia, spoke of the frequency of tubercle bacilli in the feces of tuberculous men, 100 cases furnishing 100 positive results in one series. Guinea-pigs were inoculated and tubercle bacilli recovered from the feces.

Dr. H. C. Ernst, Boston: I had occasion some time ago to investigate the question of tubercle bacilli in milk and found the percentage of positive results much larger than did Dr. Moore. In many instances the study of a large number of spreads are necessary for the detection of bacilli.

Dr. John F. Anderson, Washington: I had occasion to examine the milk from 104 dairies and found tubercle bacilli in 11 per cent. by guinea-pig inoculation.

An Experimental Study of the Relative Importance of Renal Injury, Vascular Injury, and Plethoric Hydremia in the Production of Edema

Dr. R. M. Pearce, New York: In these experiments, potassium chromate was used to act on the tubular epithelium of the kidney, the venom of the rattlesnake for damaging the endothelium of vessels, and water administered by the stomach to produce hydremia. When these three were employed, the animals developed universal edema. In none of the controls with one of these three elements lacking was edema produced. Vascular poisons other than venom, as ricin and arsenic, also sufficed to cause edema. The influence of nephrotoxic serum on animals suffering from chronic nephritis was investigated. Edema was produced oftener than in the control animals, but I do not not emphasize this because of other factors which must be taken into account.

Formation of Peritoneal Transudate

Drs. Leo Loeb and M. S. Fleisher, Philadelphia: In estimating the degree of edema it is better to employ a method by which the fluid can be measured. For this purpose the peritoneal cavity was used. The agents employed were calcium chlorid, adrenalin, heart lesions, and nephrectomy. Calcium chlorid was shown to act on the urine, the peritoneal transudate, and the intestinal fluid, diminishing the first and last and causing an increase of the second. The question as to how calcium chlorid acts on the blood vessels then arose, and further experiments showed that it acts directly on the kidney and not on blood pressure.

DISCUSSION

Dr. W. T. Councilman, Boston: I have been studying cases of chloroform injury of the liver and have noticed that from two to four days after administration of the drug there is a marked increase of peritoneal exudate. This is unusual and the cause is obscure. It apparently is not due to hepatic obstruction.

The Action of Adrenalin on the Pancreas

Drs. C. W. Edmunds and A. S. Warthin, Ann Arbor: It appeared to us that Pemberton and Sweet, in their studies, lacked sufficient ground for excluding increase of blood pressure as the cause of inhibition of pancreatic secretion. Accordingly, experiments on dogs were made with nicotin, ergot and adrenalin by intravenous injection. The results were inhibition of the secretory action of the pancreas. This indicates that there is nothing specific about the inhibitory action of adrenalin. The effect is due to constriction of the blood vessels, and any drug that accomplishes this result causes inhibition.

The Morphologic Changes in Nerve Cells from Overwork in Relation to Anemia and Surgical Shock

Dr. D. H. Dolley, Chapel Hill, N. C.: Experiments were made on dogs, shock being produced by manipulation of peritoneal contents and anemia by ligation of vessels, etc. In the former, some were shocked until death (in about 3 hours), others were allowed to recover after from 30 to 50 minutes. Transfusion of blood was employed to maintain blood pressure during the shock. The Purkinje cells of the cerebellum showed the principal changes. There was first an increase, then a decrease of the chromatic material, the cells becoming relatively smaller in size. The chromatic substance of the karyosome was affected last, the final result being a cell absolutely devoid of chromatic material. Setting an arbitrary point at which recovery of the cell is believed impossible, an average of 33 per cent. was found damaged beyond this limit. Correlating these results with those found as the result of overwork, I agree with Hodge as to the shrinking of the cell and the wrinkling of the nucleus. The changes I believe represent the functional activity of the cell carried to its extreme limit.

DISCUSSION

Dr. James Ewing, New York: I am not sure that the changes in shock and anemia are identical or that the Nissl bodies represent the functional activity of the cell. In 1898 I studied a case of complete anemia, due to thrombosis, which had lasted for a few hours, and found complete loss of the Nissl bodies. There was no evidence of excessive functional activity but there was entire loss of blood, hence anemia was the chief cause of the changes. Heat may also be used to bring about bleaching of nerve cells. Under these conditions some animals die, others recover. It is difficult to determine the degree of change that necessarily means non-survival.

Dr E E Southard, Boston· I have found similar changes in ganglion cells in brains showing encephalitis A remarkable feature is the focal distribution of such cells, several often being found at one point I am not sure of their meaning

Quantitative Changes in Cast Excretion in Experimental Nephritis

Drs E C C Coll and J J Mackenzie, Toronto This study was made with rabbits In one instance there was evidently hyaline cast formation from epithelium A differential count of hyaline and granular casts showed that the latter predominated for 48 hours, then fell away and were replaced by hyaline casts On the third day 600,000 casts were excreted in the 24 hours. On the twentieth day there were no casts and on the thirty-second day the animal was chloroformed and the kidney washed with saline solution, many casts being obtained This showed that the longer hyaline casts remain in the kidney the more dense they become

Lesions Produced in the Rat by a Typhoid-Like Organism (Danysz Virus)

Drs F B Mallory and T Ordway Boston· The early stages of typhoid lesions are difficult to obtain in human beings and with the typhoid bacillus lesions can not be produced in animals By the use of the Danysz virus, however, analogous lesions were produced in rats A large series of these were shown and all supported the previous statements based on human lesions, namely, that typhoid lesions in the intestine glands liver, etc, are due to proliferation of endothelial cells The necroses in the liver are also due to collections of endothelial cells which later undergo necrosis I have not abandoned that view that the liver necroses are due to thrombosis, but I can prove the endothelial origin of the areas It may be that both processes are capable of producing necrosis

An Experimental Study of Atrophy of the Pancreas

Drs J H Pratt, Thomas Ordway and H Morrison, Boston The operation on the first dog consisted in separating the head of the pancreas from the duodenum, leaving only the artery and vein The animal was kept alive six months and showed absolutely no atrophy of the pancreas or disturbance of metabolism In a second trial, the head of the pancreas was separated and the omentum placed between it and the duodenum The animal lost weight rapidly and when killed at the end of two months showed a small, firm pancreas that had decreased from 10 to 3 cm in length Microscopically, pancreatic tissue had almost entirely disappeared No islands of Langerhans could be found Another dog began to improve at the end of two months and now after four months is entirely well Glycosuria did not develop in any of the cases

Papers Also Read

The following papers were also read "A New Anaerobic Spore-Bearing Bacillus from the Livers of Normal Dogs,' by Drs S B Wolbach and T Saiki 'Sporulation in the Parasitic Ciliata,' by Dr E L Walker, Boston, 'Autopsy Findings in Guinea Pigs Inoculated with Semen from Tuberculous Subjects," by Dr R N Willson, Philadelphia, 'A Study of the Convoluted Tubules in a Secondary Contracted Kidney by the Born Wax Plate Method by Drs L Edward and J J Mackenzie, Toronto, 'Studies in the Biology of Tumor Cells" by Drs O T Schultz and W T Howard, Jr, Cleveland, 'Demonstration of Specimens from a Case of Ophthalmia Nodosa" by Dr H S Steensland, Syracuse, N Y, "A Modification of Culture Media Based on Physico Chemical Considerations, by Dr H M Adler, Boston

Election of Officers

The following officers were elected for the ensuing year. President Dr F B Mallory, Boston, vice president, Dr P H Hiss, New York secretary, Dr H C Ernst Boston, treasurer, Dr H U Williams, Buffalo

The meeting in 1910 will be held in Washington, D C.

Miscellany

The Work of Boards of Health

Dr George A Soper, in the *Popular Science Monthly*, March, 1909, considers the powers and relations of boards of health from a popular viewpoint He notes the combination of legislative, executive, and sometimes, judicial powers granted to such boards, and, while admitting that extensive authority may have been necessary in the emergencies created by epidemic diseases, he questions whether it would not be wise, in view of the extension of the field of operation of health authorities, to limit their powers Another anomaly in our system is that the highest health authority is the state to which the municipalities are related but there is no national health board to correlate the action of the various states

The duties of boards of health may be defined as the collection of vital statistics, the suppression of communicable diseases the abatement of nuisances and the education of the people in health matters It may properly be asked what are to be considered nuisances There is danger that the health board may occupy itself with inconveniences of a semi esthetic nature to the neglect of matters of more serious importance in relation to health Dr Soper says·

'There is something incongruous about a board of health conducting a crusade against smoke and noise and at the same time allowing the streets to be filthy with dirt and dust and offensive with accumulations of fermenting garbage Again, a great deal of the attention of health boards is occupied with alleged private nuisances which affect comfort, but not health The history of every city is a record of more and more strict regulations to minimize the unpleasant as well as the insanitary conditions of household life"

In the sanitary education of the public the important aid given by the press is recognized, but it is to be regretted that the opportunities for systematic school instruction on these subjects are still to a large extent lacking "In the campaign of sanitary education which is going on it is a deplorable fact that the universities and colleges of the United States are singularly backward With a few notable exceptions, there is scarcely a school for higher education in the United States where a competent knowledge of hygiene can be obtained In spite of the fact that many of the largest and most prominent universities have had severe experiences with typhoid. they have been exceedingly slow in providing proper facilities for the teaching of hygiene One of the greatest needs of to day is the want of competent teaching for health officers, physicians, engineers and others who may wish to obtain a complete and practical knowledge of their profession In the absence of suitable facilities for the education of health officers the United States is decidedly behind European countries"

The propriety of the extension of the activity of health boards into the realm of esthetics may be questioned but they have been granted ample power The standards of public health and municipal hygiene are continually growing higher 'First and foremost among the defects and needs of public health administration," says Soper, 'must be placed the want of adequate knowledge of the principles and practices of public health work on the part of officials having jurisdiction It is a deplorable fact that special professional qualifications are not as a rule required of health officers in the United States

If there is any department of municipal government that should be taken out of politics and put on a high plane of professional efficiency it is public health work Generally in the United States appointment on a public health board means a thankless and gratuitous service performed for the sake of the small honor which is supposed to go with it Where a salary is connected with the position the office is too often a reward of political work rather than of professional merit.

"Until the need of high-class health work is demanded, appreciated and properly rewarded by compensation in money and honor, men will not be prepared in the schools for a life-work in the public health service, and the most needed improvement in the work of boards of health will not be made."

Remote Results of Treatment of Round Gastric Ulcer.—H. Westphalen of St. Petersburg remarks that only 50 per cent. of the patients dismissed apparently cured after internal treatment for gastric ulcer are in fact actually cured. The affection is merely in a latent phase in the others and recurs later. Operative measures then are able to effect a cure in about 50 per cent. This is the average he deduces from review of the literature, with which he compares his own experience. He was able to trace 150 of his patients two years and more after the course of internal treatment for gastric ulcer, and he states that 37 per cent. were definitely cured by a single course and 16 per cent. additional by a repetition of the von Leube course of treatment—53 per cent. in all. The interval of latency had been as long as twelve years in some of the cases of recurrence, suggesting that the trouble was a new ulcer rather than recurrence. The recurrence was ascribed to error in diet, lifting a heavy weight, or other mechanical cause in some cases, but it is his impression that in most some emotional cause was responsible. In 47 per cent. of the cases the patients suffered from continued disturbances or complications. The trouble was generally of long standing in such cases; it subsided into latency for a time after treatment, but was ready to flare up again at the least excuse. The slightest divergence from the diabetic regulations imposed was followed by trouble; one patient returned five times to the hospital for internal treatment. In one case a latent gastric ulcer flared up again after a long interval, the immediate cause being the news of the sudden illness of a member of the patient's family. He was an elderly man and a hypersecretion of gastric juice and vomiting followed the emotion and the hyperacidity irritated the latent ulcer into renewed activity. In another patient the ulcer roused from its latent condition under the influence of fright from an earthquake. Perigastric adhesions are probably responsible for the return of trouble after mechanical strain. Operative treatment was applied in 36 of the 70 cases in which the ulcer caused trouble later, with a complete cure in 30 per cent. He advocates a repetition of the course of internal treatment for the ulcer after the gastroenterostomy, stating that the only case in which this was neglected was the one instance in his experience in which a peptic ulcer developed afterward in the duodenum. The importance of careful dieting for a year after internal treatment and after operative measures is now generally recognized. Some of his patients had suffered for thirteen years from the symptoms of ulcer before the internal course was successfully applied, and some with unhealed ulcers were young, while some with healed were elderly. These and other reasons force him to believe that there is some as yet unknown factor which renders certain ulcers refractory to treatment to which others yield so readily. In 9 of his cases brothers and sisters or parents and children were affected, which suggests some family tendency. His comparative study of the subject is published in the *St. Petersburg. medizinische Wochenschrift*, January 16, 1909. The best results from the gastroenterostomy were attained when the symptoms were due to mechanical disturbances, stenosis and perigastritis; the most unfavorable cases were those in which the operation was done on account of the lack of healing of the ulcer or repeated hemorrhages.

Sanitary Conditions in China.—Vice Consul-General Hull, Canton, states that there are no official statistics or records of facts relating to the sanitary conditions and mortality rate of Canton, and that the facts given in this report were gathered by observation. The following summary is quoted from him in the *Public Health Reports* of the U. S. P. H. and M.-H. S. Most buildings in Canton are low, being one story, or a story and a half high, with large openings from the top to the ground floor. Light and ventilation are provided for by ventilators or skylights in the roof. During the hot season (April to October, inclusive) from 60 to 70 per cent. of these buildings have a bamboo or mat wind shoot or funnel which distinctly reduces the temperature within the buildings. The city streets are largely paved with Hongkong granite. In the center of most of the streets is a surface sewer about 2 feet wide and 3 deep, just beneath the stone pavement, built of sandstone, brick, or tile. While these sewers are often clogged, they are frequently cleared out. About one-half of these sewers, more particularly those outside the walls, are reached by tide water each day, which helps to clear these drains. For centuries past the city water supply has been from surface wells and the river. This is now largely modified by the recent introduction of a modern system of waterworks, pressure being secured by well-constructed standpipes. The source of supply is from the river several miles northwest of the city. Modern machinery, filter beds, and pipes are used and an analysis of the water, shows it to be of good quality. The diseases of Canton are such as are usually found in a semitropical climate. Malaria, dysentery, and typhoid are common, though the latter has prevailed only during recent years. Tuberculosis is rife. Beriberi and bubonic plague are restricted largely to the summer months. True Asiatic cholera has been present twice during the past twenty years in epidemic form. At other times only occasional cases are seen. Smallpox in a mild form is present among the Chinese during the winter (December to February). Leprosy in its various form is frequently encountered among the poorer classes. The population of Canton is generally overestimated. No census has been taken, but a fair estimate of the population of the city and its immediate suburbs, including the boat population, would certainly be somewhat less than 2,000,000, Canton city itself, exclusive of the boat population, which may be estimated at 200,000, would hardly reach 1,000,000. There are almost no native hospitals in Canton, civil or military, worthy of the name. There are many public dispensaries connected with the Shin Tongs, or halls of good work, scattered about the city, but their use is largely restricted to the dispensing of Chinese drugs to outpatients. There is a military hospital in a temporary building or shed, connected with the large camp just outside the northeast corner of the city, near the imperial mint. There is also a Fong Pin hospital just off the northwest corner of the city wall where patients are received as in-patients. The principal hospital and the oldest in the city is the Medical Missionary Society's hospital, commonly called the Canton Hospital. It has 300 beds, and in emergency this number could be largely increased. It is situated on the river front, less than one-quarter of a mile east of the custom house and foreign settlement. Over 2,000 in-patients and 25,000 out-patients are treated annually, while about 2,000 surgical operations are performed each year. There are 10 main buildings, including the medical college building, connected with the hospital. The institution is supported entirely by the local Chinese and foreign communities. There is also the Paul Donour French hospital, located near the electric light works on the river front. It is a neat little hospital of 80 or 100 beds, managed on modern lines, and efficient work is done.

Ultramicroscopic Organisms.—H. Molisch (*Bot. Ztg.*, 1908,, lxvi, 131) states that most of those organisms usually spoken of as ultramicroscopic are rendered plainly visible by an alternating light and dark illumination of the field of the microscope. They are visible by any ordinary microscope and are not ultramicroscopic in size. Most of them are bacteria. In his opinion, if ultramicroscopic organisms were of common occurrence they would occasionally be found to form colonies on culture media. Such colonies would in all probability be visible to the naked eye. At least they would be visible under low magnification. Yet all organisms which form colonies are visible singly under the microscope. He does not deny the possible existence of ultramicroscopic organisms (i. e., organisms of less than 0.2 microns diameter), but asserts that up to the present time no one ultramicroscopic organism has been shown to exist. The work of Raehlmann and Gaidukov is criticised. There exists no organism of an ultramicroscopic nature with such characteristics as are attributed to it by these authors.

Cesarean Section in Mexico in the Eighteenth Century.—Dr. M. C. Terry of the Marine-Hospital Service sends us the following excerpt from the "Recopilacion Sumaria de los Autos Acordados de la Real Audencia de esta Nueva España, 1677-1786," Beleña, Mexico, 1787:

CIRCULAR OF OCTOBER 10, 1772

JUSTICES OF THE PEACE TO GIVE ROYAL ASSISTANCE FOR THE CESAREAN OPERATION

> [It is decreed] That all justices of the peace shall supply the Royal Assistance whenever it is asked of them for the performance of the Cesarean operation, under penalty of 500 pesos; compelling, when necessary [the attendance of] physicians; constraining also, the parents, husband or relatives of the dead woman in case of their refusal, opposition, or their failure to give due notice of the necessity of the operation.

It has been suggested that the "Royal Assistance" spoken of was an official institution analogous to the *Assistance Publique* in Paris.

The Asepsis of the Pancreatic Juice.—On the basis of his observations and experiments A. Frouin (*Arch. internat. de physiol.*, 1908, vi, 253) is led to conclude that, normally, bacteria are not found in the pancreatic ducts. Pancreatic juice obtained from the pancreatic duct is bacteria-free when there has been no disturbance of the normal physiologic activity of the alimentary canal. From rough handling of the upper intestine, from violence or after the establishment of a duodenal fistula there may be a back-flow of the fluid intestinal contents into the pancreatic duct. In this manner an infection of the pancreas may be brought about. This, however, seldom occurs, since the orifice of the duct is rather well guarded from a back-flow, and whatever bacteria thus gain entrance into the duct are washed out by the outflowing pancreatic juice before a foothold is obtained by them.

Medicolegal

Hospital Not Made Liable for Autopsy by Notification of Coroner

The First Appellate Division of the Supreme Court of New York says that the case of Darcy vs. Presbyterian Hospital was brought to recover damages from the hospital because a coroner's physician of the city of New York performed an autopsy on the body of John Darcy, the plaintiff's son, who was a patient and died in the hospital. The contention was that the hospital had violated its express duty and implied undertaking to deliver the body of John Darcy after his death to the plaintiff in such a condition as it might be at the time of his decease.

It appeared from the evidence that on the advice of his physician John Darcy had been removed to the hospital, his mother agreeing to pay the hospital $1 per day. After his death, the physician in charge of the case, being unable to determine the cause of his death, requested the plaintiff to consent to an autopsy, which she refused to do. Subsequent to such refusal the hospital authorities called up the board of health on the telephone, made a statement of the case to the representatives of that board, and was directed by them to notify the coroner's office. A coroner's physician subsequently appeared at the hospital, examined the clinical history of the case and the report of the hospital superintendent, decided that an autopsy was necessary, and performed it without any request of the hospital authorities, after which the body of the deceased was delivered to the plaintiff.

This was the plaintiff's case, and the court thinks it disclosed no cause of action. There was no evidence that the hospital authorities, or those for whose acts the corporation was responsible, performed this autopsy, had anything to do with or was responsible for it, except so far as the board of health and the coroner's office were informed of the death of the patient in the hospital. This certainly imposed no liability on the hospital corporation. There was no evidence that a false statement was made to the coroner or to the board of health, or that anything was said or done to induce the public authorities to take charge of the case or perform an autopsy. The bare fact that the hospital authorities informed the coroner that a death had taken place in the hospital imposed no liability on the hospital for the acts of the public authorities, taken on their own responsibility, as to the subsequent disposition of the remains.

The sole ground on which there could be any liability would be the fact that the hospital authorities had made a false report to the coroner, and thus induced him to make an autopsy when none was justified by the symptoms of the patient. It is quite clear that the mere report by an attending physician at a hospital to the coroner's office of the case of a person dying in a hospital, so that the coroner or his physicians shall make the necessary and proper examination, imposes no liability on the hospital.

Adulteration of Water

The United States Board of Food and Drug Inspection, in Notice of Judgment No. 41, gives the result, in the Supreme Court of the District of Columbia holding a District Court of the United States for said District, of the case of the United States vs. 350 Cases and 100 Demijohns of Water Labeled "Great Bear Spring." The board says that an inspector of the Department of Agriculture purchased samples of water labeled "Great Bear Spring Water," which were promptly subjected to analysis in the Bureau of Chemistry. The results of the analysis showed that the water contained the colon group of organisms, which indicated that there was a contamination rendering the water unfit for human consumption. The conclusions of the analysts were confirmed by an inspection of the bottling plant and of the methods employed there, which disclosed that the contamination was due to insanitary surroundings and uncleanly methods of handling at the time the water involved in this case was bottled. The facts were reported by the Secretary of Agriculture to the United States attorney for the District of Columbia, and libel for seizure and condemnation was duly filed in the court named with the result of a decree that the water seized be condemned as prayed for in the petition and disposed of by destruction, the spring company to pay the costs of these proceedings, including court costs, storage, cartage, and the other costs, if any, as assessed by the marshal

Claims for a "Patent Medicine" Too Much for a Court

The Appellate Court of Indiana, Division No. 1, says that the suit of the A. N. Chamberlain Medicine Company vs. H. A. Chamberlain Medicine Company, was for an injunction because of an alleged unfair competition and infringement of the trade-name, "A N Chamberlain's Immediate Relief." It was sought to restrain the H. A. Chamberlain Medicine Company from using the words "Chamberlain" and "Medicine" in its corporate name, and from using the words, "Chamberlain" and "Relief" in the name of its medicine: "H. A. Chamberlain's Infallible Relief." The answer was in two paragraphs, the second alleging that the plaintiff, prior to and during the pendency of a former action between the parties, used obscene literature in its advertising matter, and falsely advertised and represented its medicine to be a cure for divers and incongruous diseases.

It was shown by the uncontradicted evidence that the appellant's (plaintiff's) medicine, known as "Chamberlain's Immediate Relief," was widely advertised and represented to the public as being a certain and effectual cure for the following divers diseases: "Eczema or yellow fever, Asiatic cholera in its first stages, or chilblains, catarrh, or seasickness, diphtheria or pimples, cholera morbus or bee stings, bites of poisonous reptiles or piles, dysentery or scratches on horses scarlet fever or sour stomach, measles or cramps, neuralgia or general debility, hysteries or hog cholera, la grippe or bloat and scours in horses, cattle and sheep, diarrhea or itching and eruptions, bilious fever or wind galls on horses, bloody flux or sick headache, fever and ague or heaves in horses, colic or toothache, spotted fever or nervous tremors, sore throat or chicken cholera, cold feet or scalds and burns, rheumatism or earache, dumb ague or cuts and bruises, colds or summer complaint, coughs or colic in man or beast, griping pains or nervous headache, sprains and wounds or diseases of young lambs"—all from one and the same bottle.

"We," the court says, "have exhibited the diseases, for which appellant claims its medicine to be a panacea, in the above form in order to show at a casual glance the absurd incongruity of its representations, and thereby illustrating the character of the business that appellant is praying a court of equity to protect. It will be seen that this medicine is claimed to be a sovereign remedy for about all of the ills that flesh is heir to; and, if appellant's said representations are to be believed, and they are certainly made for this purpose, then, as is well said in Fetridge vs. Wells, 13 How. Prac. (N. Y.) 385: 'It would seem that so long as this medicine may be procured it will be a folly to grow old and a mistake to die.'

"There is another phase of appellant's advertisements we can not overlook. It not only recommends its medicine as a cure for diphtheria, along with other diseases, but emphasizes this recommendation with a separate line: 'This cure for diphtheria for sale by all druggists.' And advises, by what purports to be testimonials, that doctor bills as well as lives can be saved by using this specific in cases of diphtheria. This wanton advice, with reference to this known deadly disease, this reckless disregard for the consequences on human life, this palpable falsehood, put forth to deceive distressed, ignorant, and credulous people to their detriment, in cases of life and death, in order to make a few more sales of this nostrum, is atrocious and little less than a crime. 'The philosophy of the cure by Chamberlain's Immediate Relief,' says these advertisements, 'is very simple, and will at once commend itself to every thinking person. It is an antiseptic (against putrefaction), and kills poison whenever it comes in contact with it. It will kill the poisonous bacteria that lodge in the throat, and it will also destroy the terrible little animalculæ.' We hardly think it necessary to say more to convince an ordinarily informed mind that the business of appellant transacted through the medium of the trade-name and mark that it is sought to have protected by this court is fraudulent and a deception on the people. We do not say the medicine has no merit. It is unnecessary for us to pass on that point, but it is apparent that it can not have anywhere near the miraculous virtues ascribed to it, and its advertisements present an attempt at a gross imposition on the public, as well as a menace to human life.

"It is an ancient and equitable rule that 'he who comes into a court of equity must come with pure hands and a pure conscience,' and it is also well established by the authorities that, if a complainant in a court of equity claims relief against the fraud or imposition of others, he must himself be free from the same charge with reference to the same matter. If the business of such complainant is, or is sought to be, affected and injured by the misrepresentation or deceit of another, he can not be heard in a plea that by the fraudulent rivalry of another his own fraudulent profits are destroyed or diminished. The exclusive privilege of deceiving or perpetrating a fraud on the public is hardly a fit subject to be entertained in a court of equity, and certainly not one that such a court can be required to aid or sanction.

"It is no defense to the charge here discussed that appellee (the defendant) may be in the same respects equally an offender. It will be considered that it, in a like case, would be likewise dealt with. Appellant's manner of using its trade name and trade-mark and conducting its business connected therewith is a fraud on and a danger to the public. The law may permit it, but equity will not protect it."

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

New York Medical Journal

April 17

1 *Technic of the Wassermann Reaction. E. Castelli, New York.
2 *Spontaneous Combustion. J. Knott, Dublin, Ireland.
3 *Surgical Treatment of Epilepsy. W. P. Carr, Washington, D. C.
4 Importance of Cerebral Lesions Complicating Suppurative Otitis Media. S. M. Smith, Philadelphia.
5 *Longevity and Rejuvenescence. J. L. Nascher, New York.
6 Long Life and Hot Climates. W. F. Robinson, Palm Beach, Fla.
7 *Acute Postoperative Dilatation of the Stomach. D. S. Fairchild, Des Moines, Iowa.
8 *Correct Definition for Abdominal Hernia, Illustrated by Two Cases. G. I. Miller, Brooklyn.

1. **The Wassermann Reaction.**—Castelli first enunciates the principle of the reaction and technic. He describes the reagents and modes of obtaining them and the method of obtaining the reaction; discusses the value of the reaction with reference to diagnosis, therapeutics and prognosis, and arrives at the following conclusions:

1. The rôle played by syphilis needs no comment. If we are now in a position to tell the patient coming for advice that notwithstanding his previous syphilitic infection he can marry and [illegible] progeny, we have a tremendous factor of mental [illegible] in very many cases. If we can establish the [illegible]s curable it will be another great triumph for medicine.

2. The proof of derangement in mental poise as a result of previous syphilitic infection may be a helpful factor in the administration of justice.

3. The serodiagnosis will be a means of differential diagnosis during the preparalytic stage, when the general symptoms are very indefinite and generally masked by a well-defined neurasthenic syndrome. The differential diagnosis between general paralysis and neurasthenia during this period would represent the real prophylactic warning. This person during the preparalytic stage is already dangerous to himself, to his family and to society at large, and early diagnosis of his condition makes possible the safeguarding of the patient in an asylum before the dangerous manifestations of the disease have resulted in injury to himself and others, and compelled society to take protective and coercive measures against him.

4. While the serodiagnosis at present is not perfect and is moreover necessarily confined by its requirements to the hands of the few, it furnishes such a rich amount of sure diagnostic data over the positiveness of a syphilitic infection that its adoption in the different hospitals and medical institutions should be no longer optional but absolutely necessary.

2. **Spontaneous Combustion.**—Knott points out that spontaneous combustion is still accepted as an article of pathologic faith by recognized leaders in the domain of medicolegal opinion and is taught in the pages of the most comprehensive treatises on medical jurisprudence. He therefore examines the evidence from the earliest times that has been adduced in favor of this belief. The article, which will be continued, is of considerable antiquarian interest.

3. Abstracted in THE JOURNAL, Jan. 23, 1909, p. 322.

5. **Longevity and Rejuvenescence.**—Nascher discusses the natural course of life and the effect on it of forced activity. He concludes that the whole question of longevity hinges on the mode of living. If we favor the unnatural precocious development of youth and maintain indifference during the period of maturity, thus shortening both periods, we shall have an early and short period of decline. If we prolong the period of development, and prolong the period of maturity preparing for the succeeding period we shall have a late and long period of decline.

7. Abstracted in THE JOURNAL, Jan. 16, 1908, p. 237.

8. **Abdominal Hernia.**—Miller reports two cases and expresses the opinion that a correct definition for abdominal hernia would be "the escape of the abdominal contents in a congenital or acquired sac of peritoneum which is within the abdominal cavity or has passed through some point of its muscular wall."

Boston Medical and Surgical Journal

April 8

9 *Examination of the Feces for the Study of the Functional Condition of the Alimentary Tract in Clinical Work. H. F. Hewes, Boston.
10 Municipal Hospital for Advanced Consumptives in Boston. E. A. Locke and S. F. Cox, Boston.
11 A Cursory Review of Surgical Methods for the Extirpation of Hemorrhoids. T. C. Hill, Boston.

April 15

12 *Some Truths About Hydrotherapy. S Baruch New York
13 The Personal Element in Prescribing Hydrotherapy H C Baldwin, Boston
14 *Treatment of Fibrinous and Serofibrinous Pleuritis F T Lord, Boston
15 *Seven Cases of Noma; Two Recoveries; Forty Infected L R G Crandon F H Place, and W J Brown, Boston
16 Consumption of Alcohol and of other Medicines at the Massachusetts General Hospital R C. Cabot, Boston
17 Therapeutic Action of Rattlesnake Venom in Pulmonary Consumption, in Acute and Chronic Bronchitis, Asthma, Etc., and in Some Well Recognized Neuroses T. J Mays, Philadelphia

9 **Examination of the Feces.**—Hewes points out that examination of the feces, which is to day a recognized routine clinical method, may give evidence regarding two different sets of facts: (1) Diseased conditions of the gut, as by the presence of mucus or pus, blood, worms, eggs, or micro organisms; (2) disturbance of the functional condition of the alimentary tract for digestion and absorption of the food, as determined by the study of food remains in the feces. For the first purpose examination of any specimen of feces will serve; for the second, feces obtained under administration of a test diet are required The method of examination may be either chemical or macroscopic and microscopic.

He describes in detail the test diet and the method of examination constituting this particular clinical study, whereby the trained observer can determine in a given case the utilization of food products in the alimentary tract. He discusses the significance of the various findings in regard to meat, starch, and fat respectively. The disturbance of fat digestion is gone into at considerable length and findings in normal and diseased conditions are tabulated.

The general usefulness of this method of macroscopic and microscopic study of the food contents of the test diet feces in clinical work is very great, but it does not, of course, provide us with a complete knowledge of the condition of function for the digestion and absorption of the various forms of food included in our diet It tells us nothing, for example in regard to the state of proteid or carbohydrate absorption, its indications in regard to the utilization of these two forms of food substance, consist only of evidences of the condition of the function of digestion of one special form of proteid substance, meat fiber, and one form of carbohydrate substance, starch For indications in regard to these functions, the absorption of proteid and carbohydrate, as also for exact indications of the extent of disturbance of the function of fat utilization, or the proportionate quantities of the various forms of fat substance present, we are dependent on chemical analysis For such information as it does provide, however, the method is of distinct use in general clinical work.

12 **Hydrotherapy.**—Baruch insistently urges, that in the application of the bath in infectious fevers, the antipyretic effect is secondary to the nerve stimulating and sustaining effect The cold bath, and indeed every cold procedure, has for its chief object the enhancing of the resisting capacity of the patient to disease The cause of the prevailing neglect of hydrotherapy—of which he gives numerous instances—is ignorance of the physiologic and therapeutic action of water, and its remedy is the removal by instruction in our schools, which, to be effective, must be obligatory Baruch says that the average text book must be avoided by the seeker after knowledge in hydrotherapy, and he cites numerous instances of recent text books in which the information given is always inadequate and often grossly inaccurate The practitioner should depend only on works written by physicians who, like himself, have experience in general or hospital practice. The study of hydrotherapy would be simplified, were it regarded as a method of utilizing the physiologic action of thermic excitation through the medium of water He describes the mode of prescribing minutely hydrotherapeutic treatment.

14 **Fibrinous Pleuritis.**—Lord emphasizes the importance of tuberculosis as a cause of fibrinous and serofibrinous pleuritis. From published records it appears to be established that at least three fourths of the primary pleurisies with effusion are tuberculous Out of every 10 cases of primary fibrinous or serofibrinous pleurisy at least 3 or 4 develop pulmonary or other tuberculosis within an average period of from 4 to 6 years. He suggests that all cases of primary fibrinous and serofibrinous pleurisy, however mild, should be treated as tuberculous until proved otherwise. He discusses thoracentesis in regard to its indications, the question of tapping medium and small effusions, the method of removal of fluid and the amount withdrawn

15. **Noma.**—Crandon, Place and Brown, from a study of several cases, hold that noma is not proved to be a contagious disease and need not be isolated Any uncared-for mouth, particularly in a sick child, and especially after measles, many contain *B fusiformis* and *Spirochæta gracilis.* In such a mouth these organisms may be found without ulceration or in the lesions which have been described as stomatitis gangrenosa, Vincent's angina and noma The lesions, in other words, may be only round the roots of teeth, on tonsils and pillars, on inner sides of cheek, in nasal fossæ, on the external ear and about the genitals Any of these conditions, including the extensive gangrene and sloughing of so-called noma, may be different stages of the same disease, which may be, therefore, considered as not necessarily a specific disease, but the successful ingress of mouth bacteria into tissues rendered non resistant by uncleanliness and preceding disease

Medical Record, New York

April 17

18 *Freezing as a Therapeutic Measure; Liquid Air and Carbonic Acid Snow G T. Jackson, New York, and S D Hubbard New York
19 Early Diagnosis of Syphilis and the Technic of Examination for the *Spirochæta Pallida* W J Stone, Toledo, O
20 *Why Mastoiditis is Sometimes Misunderstood E Amberg, Detroit
21 Two Unusual Cases of Appendicitis A Nicoll, New York
22 Gonorrheal Conditions in Women. A J Love, New York
23 Extensive Peritonitis, Perforation of the Rectum I H. Stevens, Boston

18 **Liquid Air and Carbonic Acid Snow.**—Jackson and Hubbard claim more prominence for the name of Dr A. Campbell White as the first to use liquid air as a therapeutic measure. They describe the making of liquid air and liquid carbon dioxid and the methods of application They next describe the methods of making and gathering carbonic acid snow, the microscopic findings in frozen skin, and the methods of applying the snow They consider carbonic acid snow preferable to liquid air, because it is always to be had, which is not the case with liquid air, and because the smallest sized lesions can be frozen with it, whereas with liquid air it is often necessary to freeze a greater area than therapy calls for. Freezing is used mostly as a destructive agent. The authors consider it the best treatment for lupus erythematosus Every case of this most intractable disease has been cured when the patient has given them the opportunity to complete the treatment Nevi of all sorts are amenable to freezing, but port wine marks do not yield so readily as other forms. Epitheliomas, especially of the rodent ulcer type, they regard as a special field for freezing Other conditions, all of which have yielded to freezing, are keratosis senilis warts, papillomata, tatoo marks, powder stains, hypertrophied scars, keloid, tuberculosis verrucosa cutis, chloasma and scrofuloderma

20 **Mastoiditis.**—Amberg concludes that at present it is impossible to reach an absolutely certain decision regarding the necessity of surgical interference in some cases of affection of the temporal bone In some cases the groups of symptoms and in many cases the presence of one or two marked symptoms makes surgical interference appear imperative The danger of general inhalation anesthesia in any operation, especially in persons suffering from tuberculosis, should not be forgotten, and local anesthesia might be more thoroughly tested in cases in which general anesthesia is contraindicated. The temporal bone contains numerous groups of cells which may come into consideration in an affection of this bone, and therefore the term "mastoiditis" is sometimes misleading The construction of the temporal bone is such that a process can go on in the depth without betraying itself by very plain symptoms; marked symptoms may appear suddenly, and in some instances they pronounce the death sentence of the patient.

Lancet-Clinic, Cincinnati

April 17

24 *Municipal Charities of Paris, France, Including the Principal Hospitals. F. Dowling, Cincinnati.
25 Loss of Blood in the Relief of Mental Agony and Distress. B. Holmes, Chicago.
26 Pulsation of Large Aneurisms Non-Expansile, but Transmitted. S. Lange, Cincinnati.

24. **Municipal Charities of Paris.**—Dowling writes an interesting descriptive and historical article, illustrated by photographs, concerning the Paris hospitals.

American Journal of Medical Sciences, Philadelphia

April

27 *Surgical Anemia and Resuscitation. G. W. Crile, Cleveland, O.
28 *Influence of Emotional States on Functions of Alimentary Canal. W. B. Cannon, Boston.
29 *Meaning of Hematemesis. W. F. Cheney, San Francisco.
30 Concerning Diseases that Depend on Disturbances of Internal Secretion. W. Falta, Vienna, Austria.
31 *Treatment of Acute Infectious Diseases with Extracts of Leucocytes (Hiss). S. W. Lambert, New York.
32 Roentgen Rays in Treatment of Deep-Seated Malignant Disease. G. E. Pfahler, Philadelphia.
33 *Is Percussion as a Method of Testing the Lungs Deserving of Greater Attention? C. E. Waller, Halahult, Sweden.
34 Specific Aids in Diagnosis and Prognosis of Tuberculosis. S. von Ruck, Asheville, N. C.
35 Some Aspects of Calculous Anuria. F. S. Watson, Boston.
36 Importance of Modifications of the Sensibility in the Diagnosis of Disease. T. A. Williams, Washington, D. C.
37 Cysts of the Common Bile Duct. R. S. Lavenson, Philadelphia.
38 *Multiple Infection.* W. R. Stokes and T. M. Wright, Baltimore.
39 Diaphragmatic Hernia. E. T. Bell, Columbia, Mo.

27. **Surgical Anemia and Resuscitation.**—Crile reports observations on 20 dogs killed by chloroform and resuscitated after periods varying from 3 to 14 minutes, with a view to determining the limits of recovery after a total anemia of the nervous system. He discusses the histologic findings of presumptive recoveries and fatal cases. In human resuscitation the technic is as follows: The patient in the prone posture is subjected at once to rapid rhythmic pressure on the chest, with one hand on each side of the sternum. This pressure produces artificial respiration and a moderate artificial circulation. A cannula is inserted toward the heart into an artery. Normal saline, Ringer's or Locke's solution, or, in their absence, sterile water, or, in extremity, even tap water, is infused by means of a funnel and rubber tubing. But as soon as the flow has begun, the rubber tubing near the cannula is pierced with the needle of a hypodermic syringe loaded with 1 to 1,000 adrenalin chlorid and from 15 to 30 minims is at once injected. The injection is repeated in a minute if needed. Synchronously with the injection of the adrenalin the rhythmic pressure on the thorax is brought to a maximum. The resulting artificial circulation distributes the adrenalin that spreads its stimulating contact with the arteries, bringing a wave of powerful contractions and producing a rising arterial, hence coronary, pressure. When the coronary pressure rises to, say, 40 mm. or more, the heart is likely to spring into action. Just as soon as the heart beat is established the cannula should be withdrawn. Bandaging the extremities and abdomen tightly over the masses of cotton is very useful. From a personal experience in attempts at resuscitation of the human being, Crile has been impressed by two main facts: (1) The human heart seems to respond even more readily than the heart of a dog; (2) the possibility of drilling an operative staff so that the technic may be begun within two minutes.

28. **Influence of Emotion on the Alimentary Canal.**—Cannon points out that the ordinary physical changes expressive of emotion are mainly superficial, manifesting themselves at the periphery and occurring chiefly in structures supplied with smooth muscle and innervated through the sympathetic nervous system. More deeply lying structures, however, with similar musculature and nervous supply, are similarly affected by emotional conditions. He cites as instances the bladder and alimentary canal, and discusses the latter in detail, showing how profoundly the mental state may affect favorably or unfavorably the secretions of the stomach, so important for the continuation of the digestive process, and how quickly and directly the mental state may entirely check the onward movement of the food. As already noted, an emotional disturbance affecting the alimentary canal is capable of starting a vicious circle; the stagnant food, unprotected by abundant gastric juice, naturally undergoes bacterial fermentation, with the formation of gases and irritant decomposition products. These, in turn, may produce mild inflammation or be absorbed as substances disturbing to metabolism, and thus affect the mental state. And the depressed mental state that accompanies indigestion may still further prolong the indigestion. The importance of avoiding so far as possible the initial states of worry and anxiety, and of not permitting grief and anger and other violent emotions to prevail unduly, is not commonly understood, for the subtle changes wrought by these emotional disturbances are not brought to consciousness, and are clearly known solely through physiologic studies. Only as these effects are better understood can the bad results be avoided, or, if not avoided, regarded and treated with intelligence.

29. **Hematemesis.**—Cheney refers to the startling effect of vomiting blood and discusses the possibilities that may underlie it. He cites these possibilities, discussing each in turn as follows: Cirrhosis of the liver, gastric ulcer, gastric cancer, splenic anemia, acute pancreatitis, uremia and toxic gastritis.

31. **Extracts of Leucocytes in Acute Infectious Diseases.**—Lambert holds the following conclusions, relating to the use of *His' extract of leucocytes in infectious diseases, justified:* We have a new remedy representing a new point of view in the study of immunity, proving an intracellular immunity in addition to the accepted types of serum immunity and of phagocytosis. This remedy is applicable to obscure cases of unknown bacterial cause, *to cases of disease with unknown or* unapproachable lesions. The remedy influences the toxemia of the disease and gives an opportunity to the body cells to overcome the infection by removing from them the necessity of immediately attacking the endotoxins of the bacteria. It is by no means a "cure-all." In application, it is painful locally, but it has caused no other local complications, and the urticaria so *often* seen in the use of serum has been conspicuous by its absence.

33. This article was discussed editorially in The Journal, April 24, 1909.

American Journal of Physiology, Boston

April

40 [illegible] Smooth Muscle; A Comparison of the [illegible] Smooth and Striated Muscle. E. B [illegible]
41 [illegible] hanges of Permeability and Stimulation [illegible] of Changes in Permeability to Carbon Dioxid. R. S. Lillie, Woods Hole, Mass.
42 Factors Regulating the Creatinin Output in Man. P. A. Levene and L. Kristeller, New York.
43 *Acapnia and Shock.—III. Shock After Laparotomy: Its Prevention, Production, and Relief. Y. Henderson, New Haven, Conn.
44 *Rôle of Ash Constituents of Wheat Bran in Metabolism of Herbivora. E. B Hart, E. V. McCollum, and G. C. Humphrey, Madison, Wis.
45 *Effect of Smoking on the Blood Pressures and on the Volume of the Hand. J. W. Bruce, J. R. Miller, and D. R. Hooker, Baltimore.
46 Production by Hydrogen Peroxid of Rhythmic Contractions in the Marginless Bell of Gonionemus. O. P. Terry, Woods Hole, Mass.
47 Studies in the Physiology of the Central Nervous System: 1. The General Phenomena of Spinal Shock. F. H. Pike, Boston.
48 *Hydrolysis of* Vitellin from Hen's Egg. T. B. Osborne and D. B. Jones, New Haven.
49 Hydrolysis of Muscle of Scallop (Pectens Irradians). T. B. Osborne and D. B. Jones, New Haven, Conn.
50 Experimental Studies on Physiology of Molluscs (Fourth Paper). L. B Mendel and H. G. Wells, New Haven.
51 The Supposed Connection Between Protein Coagulation and the Heat Shortening of Animal Tissues. E. B. Meigs, Boston.

43. **Acapnia and Shock.**—Henderson has shown that irritation of a sensitive nerve *leads to* hyperpnea, and the increased rapidity of breathing leads to thorough aëration of the blood, unusual loss of carbon dioxid, or acapnia, and consequently to shock. In abdominal operations there is another factor productive of acapnia and shock, viz., *the exhalation* of carbon dioxid from the exposed viscera. Henderson sums up the results of his investigations as follows: Acapnia, due *to hyperpnea,* plays an important part in the central inhibition of

peristalsis occurring under surgical operations. Local acapnia, due to direct exhalation of carbon dioxid, is a factor in the loss of tonus in exposed viscera. When loss of carbon dioxid, both by way of the lungs and by direct exhalation, is prevented, and the blood gases are maintained nearly normal, peristalsis can be directly observed in the stomach and in the small and large intestines. The minimum rate of exhalation of carbon dioxid from exposed peritoneal surfaces is from 0.15 to 0.20 c.c. per sq. cm. in the first half hour, or 40 times the rate from the skin. Exposing the abdominal viscera to a current of air at body temperature saturated with moisture rapidly induces congestion and loss of tonus and motility. Aëration of the viscera in this manner is an effective method for the production of shock. Restoration of the body's store of carbon dioxid is effective as a method of relief from all except the extreme stages of acapnial shock. These observations, with others which are to be presented in later papers, indicate that the carbon dioxid tension in the nerve centers and in the tissues and fluids of the body is a factor in the maintenance of tonus (in the broad sense of the word) of the same order of importance as temperature, oxygen supply, osmotic pressure, and the equilibrium of anions and kations. Henderson also suggests that rapid respirations, hyperpnea, and consequent acapnia are responsible for lack of uterine tone in some cases of labor.

44. **Rôle of Ash Constituents of Wheat Bran.**—The experiments of Hart, McCollum and Humphrey were conducted on a cow, with special reference to the metabolism of potassium, calcium and phosphorus in the economy and their excretion in milk. They found that, in general, phosphorus and calcium were excreted by the feces and that when the amount of phosphorus was high, potassium was also excreted by the intestine. But when the amount of potassium was high and phosphorus low the greater part of the potassium was excreted in the urine. When calcium or phosphorus was deficient in quantity in the food, the skeletal tissues served as a source of supply thus providing against immediate disastrous results consequent on a sudden deficit in the intake of phosphorus or calcium. Variations within wide limits in the form and quantity of supply of potassium, magnesium or phosphorus did not influence the percentage content of these elements in the milk.

45. **Effect of Smoking on the Blood Pressure.**—Bruce, Miller and Hooker found that smoking raised the blood pressure and the pressure did not fall to the normal as soon as had been stated by Hesse. Due allowance was made for psychic influences. The authors do not believe, however, that their evidence lends much support to the theory that tobacco is an etiologic factor in arteriosclerosis, at least in so far as this theory assumes a mechanical injury to the vessels. The effects of moderate smoking on a man accustomed to its use would seem to be very little, if any, greater than the effects of those stimuli which are necessary consequences of civilized life.

American Journal of Surgery, New York

April

52 The Lingual Tonsil. F. C. Raynor, Brooklyn, N. Y.
53 Early Diagnosis of Carcinoma of the Uterus. I. L. Watkins, Montgomery, Ala.
54 *Value of Vaginal Fixation in Procidentia. S. S. Graber, New York.
55 Therapy of the Prostate. C. S. Stern, Hartford, Conn.
56 Cystitis. N. P. Rathbun, Brooklyn, N. Y.
57 Laryngeal Stenosis in the Adult, Successfully Treated by Intubation: Continuous Wearing of Tube for Four Years. W. K. Simpson, New York.
58 Case from Which 205 Gallstones were Removed Simultaneously with Operations on Cervix Uteri and Uterine Adnexa. A. Brothers, New York.
59 Thrombosis of Popliteal and Anterior and Posterior Tibial Arteries Complicating an Appendiceal Abscess. J. L. Campbell, Atlanta, Ga.
60 *Accident to Infant 17 Months old, with Extensive Injury to Abdominal Wall and Evisceration of all of Small Intestines: Recovery. R. B. Hall, Cincinnati.

54. **Vaginal Fixation in Procidentia.**—Graber discusses the palliative and other operations recommended in complete prolapse of the uterus, and argues in favor of vaginal fixation. He says that certainly this operation can never become so popular as ventrofixation, for there is too much to it and things are liable to happen, even during the operation. But an operation is of value, other things being equal, in proportion to the percentage of cures. The patients have nothing like so much vesical disturbance as might be expected, convalescence is usually smooth, and there would be practically no fatalities. While vesical fistula has so far not been noticed, he admits that it is not unlikely to become prevalent as the operation is more used, but this would not be the fault of the operation. Dührssen says that complications in subsequent pregnancy are not frequent, if they occur at all. In the one case of subsequent pregnancy seen by Graber labor was smooth. In 1892 Dührssen reported 114 cases with 102 cures, or 89.4 per cent. At the Lebanon and Postgraduate hospitals, Waldo has done 46 such operations and Graber about 24. Each has had one failure, but Graber considers his due to faulty technic and a bad case. But in any case he claims from 85 to 90 per cent. of success, and no other operation compares with this. He describes the technic.

60. Abstracted in THE JOURNAL, Jan. 23, 1909, p. 322.

Journal South Carolina Medical Association, Greenville

March

61 *Do We Pay Enough Attention to Prophylaxis? W. J. Burdell, Lugoff
62 Medical Progress and Postgraduate Instruction in English Hospitals L. O Mauldin, Greenville.
63 Hernia J. C Harris, Anderson.
64 Treatment of Diabetes Mellitus. J. L. Jefferies, Spartanburg.

61. **The Physician and Prophylaxis.**—Burdell points out the necessity for the individual physician cooperating with his sanitary authorities in the matter of prophylaxis of infectious diseases. He cites three instances in his own personal knowledge of cases of typhoid in which the attending physicians gave no instructions in reference to disinfecting the stools prior to burial, flies, etc.; also with regard to the washing of handkerchiefs of tuberculous patients, etc. Attention to these matters is as important as asepsis in surgery. The surgeons have no monopoly on asepsis. He makes the following suggestions as to the way in which individual practitioners can aid the sanitary authorities in the prophylaxis of transmissible diseases: First, by careful attention to even the most minute details of preventive medicine in the management of those cases that come under his care, and careful and oft-repeated instructions to the families of the sick, and also to their neighbors; second, by each and every physician in the state impressing on the members of the general assembly from his county the necessity of giving the executive committee of the state board of health the legislation it asks for: third, by cooperating freely with the executive committee of the state board of health.

Journal Arkansas Medical Society, Little Rock

March

65 Malarial Hematuria. J. G. Waldrop, Augusta.
66 *Puerperal Infection. G. A. Warren, Black Rock.
67 *Importance of Examining Eyes and Ears of School Children. R. H. T. Mann, Texarkana.
68 *Pathology of Bone Tuberculosis. J. P. Runyan, Little Rock.
69 Importance of Early Diagnosis and Treatment in Arthritis Deformans. A. E. Cox, Helena.

66, 67, 68. Abstracted in THE JOURNAL, July 18, 1908, p. 250.

American Journal of Urology, New York

April

70 Congenital Strictures of the Urethra. Dr. Tedenat, Montpellier, France.
71 Summary of Progress in the Development of Modern Cystoscopes. B. Lewis, St. Louis.

Laryngoscope, St. Louis

April

72 Two Tests for the Diagnosis of Ossicular Ankyloses, and Instrument for Their Production. E. P. Fowler, New York.
73 *The Form of the Hard Palate. H. P. Mosher, Boston.
74 Tracheotomy. C. Jackson, Pittsburg, Pa.
75 Laryngectomy, Specimen. Method of Artificial Voice Production. J. W. Gleitsmann, New York.
76 Asthma Following Operative Measures in Ethmoiditis D. MacPherson, New York.
77 Foreign Body (Toy Incandescent Lamp) in Left Bronchus. J. C. Beck, Chicago.

73. **The Hard Palate.**—Mosher discusses the asymmetry of growth of the two halves of the face and the hard palate, and believes that in faulty eruption of the posterior teeth, as well as of the anterior, and in their faulty occlusion, we have the explanation of fully half of the cases of asymmetry of the hard palate. In a measure, this paper is a continuation of his paper of last year. With the results of that article and of this one in mind, we have, then, as causes of deviations of the septum, trauma and faulty eruption and occlusion of the teeth. The practical application of both papers is obvious. It is first: To avoid trauma. This we all do instinctively. Second: To look after the proper eruption and spacing of the teeth. In the past, pardonable vanity and toothache have sent most of us to the dentist. In the future there should be a more scientific reason, namely, the attempt to avoid the harmful effect of poorly erupted and placed teeth on the septum and on nasal respiration.

Annals of Ophthalmology, St. Louis

April

78 Influence of the Eye on the Ear Under Normal and Pathologic Conditions. M. Rollet, Blois, France.
79 Size versus Distance in Test Types. C. Schulin, Billings, Mont.
80 Herpes Zoster Ophthalmicus with Involvement of the Cornea and with Oculomotor Paresis. B. Chance, Philadelphia.
81 Atropin—Its Use and Limitations in Correction of Heterophoria. G. D. Murray, Scranton, Pa.
82 Optico-Ciliary Vessels; Report of a Case. W. T. Shoemaker, Philadelphia.
83 Hereditary Blindness and Its Prevention (continued). C. Loeb, St. Louis.

Journal of Inebriety, Boston

Spring

84 The Disease of Inebriety. N. Kerr, London, Eng.
85 Alcoholic Psychosis. F. C. Horsford, Morris Plains, N. J.
86 *Relation of Salt to Inebriety. H. O. Beeson, Calcite, Col.
87 *Food and Alcohol—A Parallel. W. S. Hall, Chicago.
88 The Drink Problem. C. H. Shepard, Brooklyn, N. Y.
89 Effect of Deranged Metabolism Causing Exhaustion, for Which Spirits and Drugs Are a Most Grateful Remedy. A. L. Benedict, Buffalo.
90 Phototherapy in Nervous Disease. A. D. Rockwell, New York.
91 Voice Use and Its Relation to Alcohol. J. M. Brown, Chicago.
92 Seven Deadly Sins of Civilization. G. M. Gould, Philadelphia.

86. **Salt and Inebriety.**—Beeson urges that all supplementary salt with food is superfluous and distinctly harmful to digestion. Salt with food, in proportion of four parts or less to the thousand, is beneficial to digestion, but beyond six parts to the thousand it is positively harmful. The taste for salt in food is acquired in every instance. He discusses the physiology and pathology of the action of salt on the human economy, and says that, in addition to digestive disturbances, it produces genitourinary excitation. Indigestion is the bane of civilized man and the drink evil its inevitable consequence.

87. **Food and Alcohol.**—Hall presents the following comparative table as representing demonstrable facts and the teachings of laboratory work:

Food	Alcohol
1. A certain quantity will produce a certain effect at first; the same quantity will always produce the same effect in the healthy body.	1. A certain quantity will produce a certain effect at first, but it requires more and more to produce the same effect when the drug is used habitually.
2. The habitual use of food never induces an uncontrollable desire for it in ever-increasing amount.	2. When used habitually it is likely to induce an uncontrollable desire for more, in ever-increasing amounts.
3. After its habitual use a sudden total abstinence never causes any derangements of the central nervous system.	3. After its habitual use a sudden total abstinence is likely to cause a serious derangement of the central nervous system.
4. Foods are oxidized slowly in the body.	4. Alcohol is oxidized rapidly in the body.
5. Foods, being useful, are stored in the body.	5. Alcohol, not being useful, is not stored in the body.
6. Foods are the products of constructive activity, activity of protoplasm in the presence of abundant oxygen.	6. Alcohol is a product of decomposition of food in the presence of abundant oxygen.
7. Foods (except meats) are formed in nature for the nourishment of living organisms and are, therefore, inherently wholesome.	7. Alcohol is formed in nature only as an excretion. It is, therefore, in common with all excretions, inherently poisonous.
8. The regular ingestion of food is beneficial to the healthy body, but may be deleterious to the sick.	8. The regular ingestion of alcohol is deleterious to the healthy body, but may be beneficial to the sick (through its drug action).
9. The use of foods is followed by no reaction.	9. The use of alcohol in common with narcotics in general, is followed by a reaction.
10. The use of food is followed by an increase in activity of the muscle cells and brain cells.	10. The use of alcohol is followed by a decrease in the activity of the muscle cells and brain cells.
11. The use of food is followed by an increase in the excretion of carbonic oxid.	11. The use of alcohol is followed by a decrease in the excretion of carbonic oxid.
12. The use of food may be followed by accumulation of fat, notwithstanding increased activity.	12. The use of alcohol is usually followed by an accumulation of fat through decreased activity.
13. The use of food is followed by a rise in body temperature.	13. The use of alcohol may be followed by a fall in body temperature.
14. The use of food strengthens and steadies the muscles.	14. The use of alcohol weakens and unsteadies the muscles.
15. The use of food makes the brain more active and accurate.	15. The use of alcohol makes the brain less active and accurate.

California State Journal of Medicine, San Francisco

April

93 *Value of the Moro Skin Reaction as Compared with Other Methods of Using Tuberculin for Diagnosis in Tuberculosis. M. Rothschild, San Francisco.
94 Treatment of Burns. C. J. Teass, Kennett.
95 Decapsulation of Kidneys. R. Brown, Santa Barbara.
96 Typhoid Fever. E. C. Turner, Sacramento.
97 Tuberculins. F. Lengfeld, San Francisco.
98 Fee Division. R. Brown, Santa Barbara.
99 Medical Milk Commissions and Importance of Pure Milk Supply. W. L. Holt, Santa Barbara.
100 Milk Commission of San Francisco County Medical Society. A. B. Spalding, San Francisco.
101 Persistent Omphalomesenteric Duct with Accessory Pancreas. W. W. Roblee, Riverside.
102 Scrotal Galactocele. H. I. Weil, San Francisco.

93. **The Moro Skin Reaction.**—Rothschild, as a result of comparing the Moro skin reaction with other methods of tuberculin diagnosis in tuberculosis, states that it seems advisable to use in all cases that appear suspicious of tuberculosis, first the Moro ointment for diagnostic purposes, because it is quick, free from any disagreeable general symptoms, free from any danger and reliable. If, in a suspicious case, the reaction should be negative, it is advisable to use an injection of tuberculin, either subcutaneously or intravenously—1/10 of a milligram intravenously, or ⅓ of a milligram subcutaneously is sufficient in the majority of cases.

Ohio State Medical Journal, Columbus

April

103 Headache from a Neurologic Standpoint. W. B. Laffer, Cleveland.
104 Headache of Ocular Origin. R. Sattler, Cincinnati.
105 Headache from Nasal Causes. W. W. Pennell, Mt. Vernon.
106 Infantile Hypertrophic Stenosis of Pylorus. F. E. Bunts, Cleveland.
107 *Achylia Gastrica, with Mechanical Methods of Treatment. J. M. Rector, Columbus.
108 Traumatic Hematoma of Scrotum. A. B. Walker, Canton.
109 Ulcer of Stomach in an Infant of Six Months, Probably Syphilitic. R. M. Shannon, Piqua.

107. **Achylia Gastrica.**—Rector says that most of the acquired cases of achylia gastrica can be relieved, and the gastric secretions restored. If the motor function of the stomach muscle can be restored, the position of the organ and the state of the glandular structures will cause no trouble, so long as the intestinal digestion is undisturbed. The relation of the secreting glands to the muscular structures proves the hopelessness of medicinal treatment. The medicine and thickened mucosa can be removed by the use of tincture of green soap or a solution of silver nitrate. The slight sloughing will reopen the obstructed ducts. Medicines given in the usual way will not reach the mucosa when it is covered with a layer of mucine, and they are useless to counteract fermentation and bacterial growth.

Mississippi Medical Monthly, Vicksburg

April

110 Colles' Fracture. J. T. Walker, Brookhaven.
111 Treatment of Compound Fractures. C. H. Rice, Summit.
112 Puerperal Infections. O. N. Arrington, Brookhaven.
113 Membranous Laryngitis. W. H. Ramsay, Darbun.

Journal of Cutaneous Diseases, New York

April

114 *Cancer *en Cuirasse.* S. Pollitzer, New York.
115 Cheilitis Glandularis Apostematosa. R. L. Sutton, Kansas City, Mo.
116 *Treatment of Verrucæ Plantares. R. L. Sutton, Kansas City, Mo.

117 Blastomycosis Cutis: Report of Two Cases, One Becoming Systemic, with Fatal Termination. E. H. Shields, Cincinnati, O.

114. **Cancer en Cuirasse.**—This is a descriptive paper, in which Pouitzer reports a case, sums up the clinical features, and illustrates it with microscopic sections. The most striking feature of the sections was the comparatively slight evidence of change in the cutis, in which the clinical symptoms would have led one to expect profound changes.

116. **Plantar Warts.**—Sutton reports freezing these troublesome lesions with carbon dioxid snow, with excellent results. A pencil of the substance, a trifle greater in diameter than the depression or "well" in the growth, is applied to the center of the wart for from 30 to 60 seconds, with considerable pressure. The tissues are then allowed to thaw and a second application of 30 seconds' duration is made, a slightly smaller stick being used. A simple dusting powder, such as boric acid, is all the after-treatment required.

Journal Tennessee State Medical Association, Nashville

April

118 Some Accidents and Complications of Ovarian Cyst. W. D. Haggard, Nashville.
119 Why Spectacles Are Worn. G. C. Savage, Nashville.

FOREIGN

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London

April 3

1 *Treatment of Gastric Ulcer by Immediate Feeding. E. I. Spriggs.
2 *Early Diagnosis and Treatment of Cancer of the Stomach. W. H. White.
3 *Idem. B. G. A. Moynihan.
4 Surgical Treatment of Gastric Ulcer, its Complications and Sequelæ. J. Marnoch.
5 Intussusception Containing a Sarcoma of the Intestinal Wall: Enterectomy. Recovery. C. A. S. Ridout and J. F. Palser.
6 *The Embryologic and Pathologic Significance of Certain Folds in the Anal Canal. J. B. Dawson.

1. **Immediate Feeding in Gastric Ulcer.**—Spriggs recapitulates the essential features of the Lenhartz treatment as follows: (1) Complete rest in bed for four weeks; (2) feeding the patient from the beginning of the attack with small quantities of beaten-up-eggs and milk, the quantities being increased daily; (3) the application of an icebag to the epigastrium; (4) adding to the dietary, boiled rice, mince, and other semisolid and solid foods after the first week; (5) the administration of bismuth and iron in suitable form. Of these, the complete rest in bed, the bismuth and iron, and the icebag are commonly advised by physicians; but the plan of allowing food to be put into the ulcerated stomach at the beginning of treatment is contrary to the usual practice. He discusses the subject and reviews published cases and statistics, arriving at the following conclusions:

1. The Lenhartz method of treatment is not more dangerous than treatment by nutrient and saline enemas followed by a graduated milk diet. In these particular cases the recurrence of hemorrhage was less frequent, and there were no deaths.
2. The pain suffered by the patient in the course of treatment is less on the Lenhartz diet.
3. The diet gives far more nourishment than can be introduced into the body by nutrient enemas, and is, therefore, more desirable in patients who have frequently been for a long time in a state of semi-starvation, or have suffered a loss of blood, or both.
4. In patients treated by this method rectal injections may be entirely avoided. This is an advantage in a hospital, and a still greater advantage in treating patients at their homes, where rectal injections are not only regarded as extremely unpleasant, but are seldom efficiently administered.

2. **The Early Diagnosis of Gastric Cancer.**—White says that even if the growth can not be removed or secondary deposits render removal undesirable, much benefit often follows gastroenterostomy if there are signs of pyloric obstruction. He thinks it clear that there are no means of infallibly diagnosing cancer of the stomach in its early stages. But he believes that by carefully considering a number of points we might sometimes arrive at a diagnosis earlier than we do and therefore give the patient the chance of excision which, generally speaking, can do good only in the early stages.

3. **Cancer of the Stomach.**—Moynihan insists on the importance of the anamnesis, discusses the symptoms of cancer, the relation of gastric ulcer to cancer, exploratory incision, indications for operation, and describes briefly the technic thereof. He sums up his knowledge of cancer of the stomach, as revealed to him by a study of the cases which have come to him for surgical treatment, in the following propositions:

1. Cases of cancer of the stomach when examined in regard to previous history may be divided into three groups: (a) Cases, generally acute, in which the symptoms appear suddenly and progress rapidly; the whole history may be confined within a space of four to nine months; (b) cases in which there is a history of one ancient attack, or of repeated attacks, due undoubtedly to the presence of a chronic gastric ulcer; (c) cases in which there is no previous history of gastric ulcer; in some of them a condition of "ulcus carcinomatosum" may be found.
2. The acute cases are not seldom ushered in by an attack of severe hematemesis, with or without melena. It is possible that such copious bleeding is dependent on multiple hemorrhagic erosions.
3. The importance of a history of repeated attacks of indigestion, alike in their origin, course, and termination, can not be exaggerated. Such attacks are due to a chronic gastric ulcer, which at last becomes malignant.
4. Cancer of the stomach, in so far as it depends on a chronic ulcer for its origin, is a preventable disorder. It is probable that two-thirds of the whole number of cases may be so classed.
5. The final attack is distinguished from former attacks by its lingering character, its rebellion against the treatment, dietetic and medicinal, which has proved helpful before, but chiefly by the presence of a profound distaste for food, anemia, and a progressive loss of weight.
6. The chemical examination of stomach contents is of little or no value in so far as early diagnosis of carcinoma of the stomach is concerned. In the later cases, when a possible diagnosis of malignancy is made on the clinical evidence, the results of repeated chemical analyses of the stomach contents afford additional evidence of considerable value.
7. Surgical treatment should be advised in all cases of stomach disorder in which there is obstruction, stasis, or tumor, and in all cases of chronic ulcer; in this way early cases of carcinoma will be found, and radical treatment will be possible.
8. There are no symptoms, and there are no signs which, individually or collectively, permit of an assured diagnosis of cancer of the stomach, in an early stage. In cases in which there is grave suspicion an exploratory operation should be advised. Such operations should be practiced to enable a diagnosis to be made in an early stage, not to confirm an almost certain diagnosis in a hopeless stage.

6. **Folds in the Anal Canal.**—Dawson draws the following conclusions from an investigation of sagittal sections made by him through the pelves of six fetuses of ages varying from two months to full time:

1. There are commonly valve-like folds uniting the upper ends of the columns of Morgagni.
2. These folds seem to represent remnants of the embryonic proctodeal membrane.
3. The epithelium of the proctodeum may be prolonged upward, under these valves, into the rectal submucosa, and these prolongations may persist as diverticula in the adult.
4. When such diverticula are present it is an indication that the merging into one of rectum and proctodeum has been imperfect to a greater or lesser extent.

The pathologic significance of these upper valves and the sinuses beneath consists in:

1. The occurrence of inflammation in and around them which produces symptoms of painful defecation.
2. The possible part they may play in the formation of submucous fistula.
3. The possibility that the occurrence of inflammatory mischief at a spot where there is partially buried epithelium may originate carcinoma of the squamous variety, such as is found in the anal canal.

Lancet, London

April 3

7 *Some Disorders of Cerebral Circulation and Their Clinical Manifestations. A. E. Russell.
8 Modern Methods of Treatment of Some Common Skin Diseases. J. L. Bunch.
9 *Clinical Value of the Antitryptic Index of the Blood in Tuberculosis. F. L. Golla.
10 Spontaneous Cure of Thoracic Aneurism. Sir T. Oliver.
11 Amputation Through Hip Joint in which Hemorrhage was Controlled by Intraperitoneal Compression of the Common Iliac Artery. E. W. Roughton.
12 Use of Intraperitoneal Compression of the Common Iliac Artery During Amputation Through Hip Joint. T. P. Legg.
13 Pemphigus in a Nonagenarian; Recovery. J. G. Glover.
14 Juxta-Epiphyseal Inflammation of Upper End of Humerus. A. F. Messiter.
15 Graduated Rest in Treatment of Pulmonary Tuberculosis. E. E. Prest.

7. **Disorders of the Cerebral Circulation.**—In the first Goulstonian lecture Russell maintains that the fundamental factor underlying both the ordinary faint and the epileptic fit is cerebral anemia. It follows further that the difference between the two is one of degree rather than of kind. We have some clinical evidence of this in the suddenness of some

faints, and in the conversion of faints into fits. The difference he holds to be due to the difference in the rate of development of the cerebral anemia. In the ordinary faint the cerebral circulation slowly diminishes *pari passu* with the falling blood pressure. In the fit there is a sudden cessation of the circulation. Similarly the circulation slowly improves in the faint; in the fit it probably returns with greater rapidity. The fainting proclivity is commonly associated with other evidences of cardiac and vasomotor instability and an exciting cause is usually present. In epilepsy, the ordinary evidences of vasomotor instability are not so obvious and exciting causes are commonly absent. It must suffice for the present to bring forward the above evidence of cardiac inhibition, however scanty, and to examine to what extent it will explain the various manifestations of epilepsy.

9. **The Antitryptic Power of Blood Serum in Tuberculosis.**—Golla describes experiments to ascertain the antitryptic power of blood serum in tuberculosis, using the method of electrical conductivity, as introduced by Victor Henri and familiarized by the work of Bayliss. The results of using this method have been encouraging. He describes the actual technic employed. While the rise of antitryptic index in the cases experimented on has no direct relation to the temperature from a clinical viewpoint, a consideration of the cases gave the impression that the antitryptic index furnishes some indication of the degree of tuberculous intoxication. In the majority of cases that showed signs of progressive improvement, the antitryptic index was normal or showed only a slight rise. In those cases in which the disease was progressing, the index was much raised. The material so far at disposal does not permit the discussion of the significance of the variations of the antitryptic power of the blood.

Medical Press and Circular, London

March 31

16 Treatment of Local Tuberculous Lesions by Injections. A. Calot.
17 Death Certification and Coroners' Inquests. F. W. Lowndes.
18 Prognosis in Valvular Disease of the Heart. Sir J. F. H. Broadbent.

Clinical Journal, London

March 31

19 *Venesection. W. H. White.
20 Gastric Hemorrhage. C. Bolton.
21 Hemorrhage into the Testicle. V. W. Low.

19. **Venesection.**—White refers to the fact that the reaction against bleeding which occurred in the fifties, became so exaggerated that 20 or 30 years ago a student might have passed through his entire career without seeing bleeding performed. He quotes many instances to illustrate the abuse of the remedy which occasioned its neglect. The great majority of patients for whom bleeding is desirable are people in whom the right side of the heart is overgorged with blood, most frequently as a result of mitral disease, bronchitis or pneumonia. He quotes Wilks' graphic description of the patient whose condition calls for bleeding as follows:

> You see your patient sitting up in bed, the face, tongue and lips blue or purple, and the jugular veins starting out of the neck and often visibly pulsating, the heart beating quickly and perhaps a tricuspid bruit, indicating the gorged right heart and obstructed lungs; the veins in the body are full to bursting.

As to quantity there is no rule, but the average amount is from 10 to 15 ounces. The common idea that a small pulse is a contraindication he negatives by pointing out that such small pulse is to be interpreted as signifying that so much blood is dammed back in the venous system that not much of it gets on to the arterial system, so that the pulse is naturally small. Consequently, he regards it as a good reason for bleeding. A cardiac patient who does not respond to digitalis when in the livid condition will respond to it after bleeding. White describes instances of various conditions in which bleeding gave prompt and noticeable relief.

Archives des Maladies du Cœur, etc., Paris

March, II, No. 3, pp. 129-192

22 Independence of the Globulins in respect to the Blood Corpuscles. (Indépendance des globulins par rapport aux globules rouges et blancs du sang.) C. Achard and Aynaud.
23 *Operative Treatment of Thrombosis of Brachial Artery. (Artérite et thrombose de l'artère humérale; artériotomie, etc.) P. Lecène.
24 *Recurring "Writer's Cramp." (Claudication intermittente du bras d'origine artérielle.) M. de Lepinay.
25 Lipoma in the Heart. (Lipome du cœur.) H. Verliac and L. Morel.

23. **Operative Treatment of Thrombosis of the Brachial Artery.**—In the case reported by Lecène he was able to make a longitudinal incision in the artery, to extract the thrombus and suture the vessel again without reducing the size of the vessel and without inducing any signs of inflammation at the point. The patient was a man of 55, tuberculous, with signs of impending gangrene from arteritis. He succumbed not long after the operation to pneumonia and the progressing gangrene; the artery had filled up again with a clot. The case shows that operations for thrombosis from arteritis have little prospects of success. The trouble is the result of simultaneous obliteration not only of the main trunk, but of the collateral arteries by the progressive thrombosis—the arteritis is scarcely ever restricted to a single vessel or segment of one, and the surgeon is disarmed in the presence of these multiple small obliterations.

24. **Intermittent Claudication of the Arm.**—Lépinay's case demonstrates that obliterating endarteritis is not the only cause liable to induce this disturbance. It may result from aortic or intracardiac disturbances interfering with the blood supply to the arm.

Bulletin de l'Académie de Médecine, Paris

March 16, LXXIII, No. 11, pp. 323-346

26 *Precipitation Reaction in Epidemic Cerebrospinal Meningitis. H. Vincent.
27 Official Medical Assistance for the Natives in French West Africa. M. Kermorgant.

26. ***Precipitation Reaction in Epidemic Cerebrospinal Meningitis.***—Vincent states that the cerebrospinal fluid gives a precipitating reaction when added to an agglutinating serum in case of meningococcus meningitis. This precipitation test was constantly negative in the controls and constantly positive in the fluid from patients with epidemic meningitis in which the intracellular diplococcus could be cultivated from the fluid. He centrifugates the cerebrospinal fluid until the supernatant fluid is entirely clear and then adds one drop of specific agglutinating serum to 100 and to 50 drops of the fluid. After eight or twelve hours the fluid in the tube becomes turbid in the meningococcus cases, while it remains limpid in all cases of meningitis of other origin and in health.

Presse Médicale, Paris

March 24, XVII, No. 24, pp. 209-216

28 *Reactions on the Part of the Meninges in Various Infections in the Young. (Réactions méningées dans les érythèmes chez les enfants.) Hutinel.
29 *Causes of Orthostatic Oliguria and Albuminuria. G. H. Lemoine and G. Linossier.
30 *Ferrier's Antiacid and Alkaline Treatment of Tuberculosis (Le tuberculeux et la méthode "recalcifiante" de P. Ferrier.) M. Letulle.

March 27, No. 25, pp. 217-224

31 Immediate and Remote Results of Arteriovenous Sutures. A. Frouin.
32 Boxers' Fracture. (Fracture de l'extrémité inférieure du premier métacarpien.) O. Lenoir.
33 Antipneumococcus Powder. (Une immunisine antipneumococcique.) L. Bertrand.

28. **Reaction of the Meninges in Various Infections.**—Hutinel has examined the cerebrospinal fluid in 72 children with various rashes, scarlet fever, measles, etc. The findings show that the meninges usually react to various infections and intoxications, at least in the young, and that there is nothing specific in these reactions unless they are very pronounced.

29. **The Causes of Orthostatic Albuminuria.**—Lemoine explains this condition as the result of sluggishness in the circulation through the kidneys in the standing position plus some functional insufficiency in the organ, some special sensitiveness, congenital or acquired, to injurious influences.

30. **Antiacid and Alkaline Treatment of Tuberculosis.**—Letulle used to be very skeptical in regard to Ferrier's views in respect to tuberculosis, namely, that the tubercle bacillus could not thrive except in an acid medium. Ferrier founded a

free dispensary two years ago to apply his views in practice, and Letulle has been visiting the dispensary from time to time to watch the progress of the patients under this "recalcifying method." He has thus supervised a large number of the tuberculous of both sexes, belonging to the working classes, and states that all have shown marked improvement, while they have been able to keep at work, free from fever, and proud of being able to earn their living. All this is in marked contrast to the dreary aspect of the tuberculous in institutions, who are awaiting the end in idleness and silent gloom. Ferrier's principle is to prevent the introduction and formation of acid in the organism. Wine and spirits of all kinds are forbidden, also butter, fat and sauces, lemons, oranges, old cheese and vinegar in any form. The meals should not be close together, and not more than 200 or 300 gm. of bread should be taken during the day, and 300 or 400 gm. of meat; the main reliance should be potatoes, carrots, peas, eggs, fresh fish and cooked fruits, with a glass of alkaline mineral water early in the morning and half an hour before each meal. The patient also takes three powders during the day, each containing 0.5 gm. calcium carbonate; 0.2 gm. tribasic calcium phosphate, and 0.05 gm. calcined magnesia. He is also told to work according as he has strength and to sleep as well as he can. Letulle adds that the future will decide the therapeutic value of this recalcifying method, but so far it has rendered great services both to the individual and to the community.

Revue de Chirurgie, Paris

March, XXIX, No. 3, pp. 445-659

34 *Primary Tuberculosis of Ileocecal Glands. (Tuberculose primitive des ganglions iléo cæcaux.) Vautrin.
35 *Cancer of the Bile Ducts E. Quénu.
36 *Ulcer Developing in Hour-Glass Stomach (Ulcère en évolution et biloculation gastrique.) X. Delore and H. Alamartine.
37 Surgical Forms of Tuberculosis of the Stomach. (Les formes chirurgicales de la tuberculose de l'estomac.) R. Leriche and E. Mouriquand Commenced in No. 2.
38 *Subphrenic Abscess. (Les abcès sous-phréniques.) P. Guibal. Commenced in No. 1.

34. **Primary Tuberculosis of Ileocecal Glands.**—Vautrin discusses the tuberculous process in the mesenteric lymph nodes at the junction of the small intestine and cecum. It is more common in the young and especially in girls. He describes three cases to sustain his assumption that this may be a primary tuberculous process, the anatomic conditions favoring localization of the tuberculous process in this region with or without involvement of the glands. The abundance of follicles here and the network of absorbing lymphatics make this one of the most important lymphoid organs. The condition here resembles those in the tonsil and the long sojourn of matters at this point promotes infection. Many children are supposed to have torpid appendicitis from the disturbance caused by a tuberculous process here. This is proved by the long duration of the disturbance and the slow subsidence of the swollen ileocecal glands. From this point the bacilli may invade any part of the organism.

35. **Cancer of the Bile Passages.**—Quénu discusses the benefits from palliative operations and the causes for postoperative disturbances. He is convinced that fatalities are more frequent than generally supposed after a simple exploratory laparotomy for chronic jaundice with cancer. Cotte collected from the literature 91 cases of cancer of the biliary passages, and in 6 intervention was limited to an exploratory laparotomy; in the 5 cases in which the outcome is known the patients all succumbed to collapse or hemorrhage, and Quénu himself has had 2 fatalities from this cause and knows of 3 others. In 31 cases in which cholecystostomy was done, 9 of the patients survived, the others succumbing to hemorrhage before the eighteenth day. The survivals were only for a few weeks up to six months. Quénu has done this operation himself twice and one patient succumbed to hemorrhages in two weeks, the other to cachexia in four weeks. In 28 cases in which an anastomosis was made, 19 of the patients died and the others survived for a few months. Study of this material shows that severe jaundice or cholemic hemorrhage is observed only with retention of bile, and secondary hemorrhage does not occur after operations for cancer of the biliary passages unless there has been retention of bile. Retention from gallstones is seldom followed by secondary hemorrhage. The hemorrhagic complication is evidently the result of the association of cancer and jaundice, and seldom occurs without the two. The addition of the cancer toxin to the toxic products which should have been eliminated by the liver and kidney renders the organism more susceptible to the action of the anesthetic. Chloroform, besides, has a direct hemolytic action. It may be advisable to make a preliminary injection of calcium chlorid or of serum, as Weil suggests, to ward off this tendency to secondary hemorrhage.

36. **Hour-Glass Stomach Due to Developing Ulcer.**—Delore and Alamartine report three cases in which the stomach became constricted under the influence of a rebellious ulcer, and they compare with these cases 27 others which they have found in the literature. The characteristic lesions, the symptomatology and the treatment required by this variety of hour-glass stomach form a pathologic entity which the clinician should know as well as the surgeon. The troubles develop in two phases; first, a long period of digestive disturbances, with ups and downs. The symptomatic triad includes pain, vomiting and, more rarely, hematemesis. The dyspepsia becomes more and more intense and the general condition grows worse until surgical treatment seems to be the only resource. This hour-glass stomach due to rebellious ulcer is fatal without surgical treatment. Perforation of the stomach is the most frequent outcome, but it may occur without symptoms owing to the adherence of the stomach wall to some adjacent organ. The necessity for gastrectomy is beyond question, and they discuss the best technic, with illustrations, citing statistics to show that mediogastric resection is the best means of cure. The mortality in 15 such operations has been only 6.6 per cent. The two patients on whom they have operated in this way are completely and radically cured to date, six and eighteen months since the operation. Late statistics show a mortality of 14 per cent. in 35 cases and confirm the durable benefits derived.

38. **Subphrenic Abscess.**—Guibal concludes this long illustrated article on the various forms of subphrenic abscess with a discussion of the indications and results of operative treatment. One of the main causes for failure is the non-recognition of the abscess when conditions are found otherwise deemed sufficient to explain the symptoms observed. Jeannel made a gastroenterostomy to remedy disturbances from stenosis of the pylorus, overlooking a subphrenic abscess which was found at autopsy in the angle between the ribs and the ensiform process. In two or three other cases a pleural effusion and appendicitic abscess were drained, but autopsy revealed an unsuspected subphrenic abscess of gastric origin. The most common cause of postoperative fatalities is the existence of a second, unsuspected abscess; such mistakes are not always avoidable. Tuberculous abscesses generally prove fatal. Other causes of death were coinciding myocarditis, peritonitis by propagation or perforation of the abscess and suppurative cachexia three months after the operation. Rochard has reported a case of fatal intoxication from mercuric chlorid used to rinse out the cavity repeatedly. The multiplicity and extent of the lesions encountered in so many cases emphasize the importance of early diagnosis and prompt surgical intervention in every case of subphrenic abscess.

Semaine Médicale, Paris

March 31, XXIX, No. 14, pp. 145-156

39 *The Work of the Imperial Cancer Research Fund. R. de Bovis

39. **The Imperial Cancer Research Fund.**—de Bovis reviews what has been accomplished by the British Cancer Research Fund workers, asserting that while the results of the experiments undertaken do not seem to have materially advanced our knowledge of cancer, yet they constitute on the whole immense progress. They entirely sweep away the theories more or less generally accepted in regard to contagion, parasitic origin and toxicity of cancer, and they show conclusively

that the solution of the cancer problem must be sought in the cancer cell itself. The British workers have merely worked along lines already outlined, but they have accumulated such evidence as to establish certain facts beyond question.

Beiträge zur Klinik der Tuberkulose, Würzburg

XII, No. 2, pp. 195-258. Last indexed April 3, p. 1148

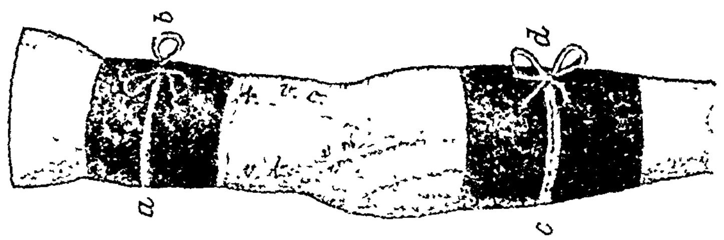
40 Roentgen-Ray Examination in Diagnosis of Incipient Pulmonary Tuberculosis. (Zur Roentgendiagnostik bei Anfangstuberkulose der Lungen.) *H. Rieder.*
41 Percutaneous or Salve Reaction to Tuberculin. (Klinische Ergebnisse der perkutanen Tuberkulinreaktion.) E. Moro.

Berliner klinische Wochenschrift

March 15, XLVI, No. 11, pp. 477-528

42 *"*Vein Anesthesia.*" (*Ueber Venenanästhesie.*) A. Bier.
43 Hematoma of the Vulva as Obstacle to Delivery. (*Haematoma vulvae als Geburtshindernis.*) W. Liepmann.
44 Allowing Patients to Get up Early after *Laparotomies.* (*Das* frühe Aufstehen nach Laparotomien.) C. Hartog.
45 Treatment of *Placenta Prævia.* G. Binder.
46 Mechanism of Action of Atoxyl. (Wirkungsmechanismus des Atoxyls.) W. Roehl.
47 Criticism of Bauer's Modification of Serodiagnosis of Syphilis. (Einige Bedenken gegen die Bauer'sche Modifikation *der Wassermann'schen Reaktion.*) *C. Stern.*
48 Latest Methods of Treating Gonorrheal Epididymitis and Favorable Results of Puncture Treatment. (Die neueren Behandlungsmethoden der Epididymitis gonorrhoica.) Ernst. Commenced in No. 10.

42. **Vein Anesthesia.**—Bier has named this new method *Venenanästhesie*, and here devotes eleven pages to a complete description of the technic and of his experiences to date with it in 134 operations, including 10 amputations, 37 resections of joints, 12 sutures of bones, 7 extirpations of varices, etc. The results were perfect in 115 cases and satisfactory in 14, only 5 of the *total 134 patients experiencing pain. The technic was described in* The Journal, *Sept. 19, 1908, page 1040.* The general circulation is cut off from the region to be operated on and then the tissues are anesthetized in this region by diffusion of the anesthetic which is injected into a vein. The anesthetic *may* be removed *afterward* by flushing the vessels in the region with salt solution, if this is deemed necessary. No other method of local anesthesia gives such perfect results, he declares. The constriction is applied with *two elastic bands, the same band used for constriction* hyperemia, six *feet long for the arm and* ten feet for the thigh, wound *around to cover a broad area* above and below the field to be operated on, after the blood has first been expelled from the limb by winding from below upward. It is necessary to refrain from causing the least pain at the outset, as this destroys the confidence of the patient. He would refrain from the vein anesthesia in case of senile or diabetic gangrene, but otherwise thinks this technic has no more contra-*indications than any form* of local anesthesia. He has never witnessed any *untoward by-effects* of any consequence, and concludes his communication with the assertion that this *form of* anesthesia represents a great advance; it throws all other methods of local anesthesia into the shade, he believes, although he advocates it only when the ordinary measures for local anesthesia are inadequate. Its special field is *for* major operations on the limbs. It supplants spinal anesthesia for all such operations, as it is *simpler* and harmless.



"Vein anesthesia" Anesthetic is injected at +.

Deutsche medizinische Wochenschrift, Berlin

March 25, XXXV, No. 12, pp. 513-560

49 *Treatment of Malaria. Nocht.
50 *Germ Causing Trachoma. (Erreger des Trachoms.) Greeff.
51 Purin Metabolism in Gout and Negative Results of Attempts
to Influence it. (Purinstoffwechsel bei Gichtkranken.) E.
Frank and C. Funk.
52 Quantitative Test for Trypsin. (Nachweis von Trypsin und
[illegible] de zu dessen quantitativer Bestim-
mung.) [illegible] nidt.

53 *Treatment of Lung and Heart Affections by Application of Heat. (Behandlung von Lungen- und Herzkrankheiten mit Hitze.) A. Heermann.
54 *Experimental* Research on Mode of Action of Hyperemic Treatment. (Zur Wirkungsweise der Bierschen Stauungstherapie.) Y. Shimodaira.
55 *Isolated Stiffening of Abdominal Wall after Traumatic Injury of Spine. (Isolierte Bauchdeckenspannung nach *Wirbeltrauma.*) E. W. *Baum.*
56 *Torsion of the Omentum and Incarceration of Hernia. (Netztorsion und Brucheinklemmung.) A. Brüning.
57 Treatment of Backward Dislocation *of the Ulna* and its Complications. (Die Luxatio cubiti posterior in ihrer Beziehung *zur Fraktur des Processus coronoideus* ulnae, zum Mechanismus der Reposition und zur Frage der Knochen*neubildung* im Ellbogengelenk.) Schwenk.
58 *Duodenal Ulcers in Infantile Marasmus. (Duodenalgeschwüre bei der Pädatrophie.) H. F. J. Helmholz.

49. **Treatment of Malaria.**—Nocht *comments on the confirmation* of clinical experiences by the discoveries of Schaudinn in regard to the sexual development of the malaria parasites, especially his findings in respect to the adult forms which are not affected by quinin. These forms are the long sought latent form between the initial infection and relapses. Nocht presents arguments and describes clinical experiences to prove the superiority *of giving quinin in fractional* doses instead of in one single dose. He follows the usual rule of giving 1 gm. (15 grains) every day for six or seven days, then suspending it for three days, then for four days, five days and finally seven days, with three quinin days of 1 gm. each interposed between each interval. More of the quinin is utilized when the 1 gm. is given in five doses during the day. He commences as soon as the diagnosis is made, without regard to *impending* or *existing* attacks, and his experience with 376 *patients treated on these principles* has been extremely *favorable. He* warns that errors in diet, chilling and over-exertion should be carefully avoided as liable to bring on relapses.

50. **The Causal Agent of Trachoma.**—Greeff's *announcement* of the discovery of the micro-organism responsible for trachoma was mentioned in The Journal, April 10, page 1192. *He here describes the staining technic with illustrations* of the germ. See also Berlin Letter, page 1345.

53. **Treatment of Lung and Heart Affections with Heat.**—Heermann reports success in treatment of heart and lung affections by applying heat to the legs to draw the blood away from the congested area. In more than 100 cases the favorable effect of this measure was striking. No effort was made to induce sweating, although this sometimes occurred. He has entirely discarded local application of ice, finding *that* heat answers the same purpose much more effectually. In *one of the cases described a patient* with croupous pneumonia was *extremely cyanotic*, with much dyspnea, respiration 56 and pulse 150. Application of a hot-air apparatus over the lower part of the body up to the stomach caused a remarkable change for the better. In the course of an hour *all* the congested blood had been drawn away from the upper part of the body. The procedure was repeated at night and the same effect was observed. The benefit on the heart action was so regular and so striking in the lung affections that it *encouraged* him to try the same measure in congestion from cardiac defects, and he states that it was wonderful to see the improvement in extreme cyanosis with failing cardiac compensation, no effect being obtained from *digitalis; all the* symptoms of congestion subsided in a few *minutes after* the hot-air apparatus had been applied *to the* lower *part* of the body. *Of course the benefit is only symptomatic*, but he found *that* local application of heat to the heart has the same effect in rheumatic troubles as application of heat to the joints. In one obstinate case of pericarditis without effusion he applied a hot water bottle to the heart with *immediate* improvement. He now applies local heat to the heart in all rheumatic affections once or twice *a day for* from ten to forty-five minutes at a time. In no instance has there been the least *intolerance on the part of* the heart; and the *relief* was so marked that the patients clamored for it. The ice bag should not be used until local heat has been given a *trial* as it is impossible to determine beforehand the cases *in* which cold or hot applications will give most *relief.*

55. **Isolated Rigidity of the Abdominal Walls After Injury of the Spine.**—Baum reports three cases to show that the persisting tetanic stiffening of the abdominal wall which has hitherto been regarded as pathognomonic of abdominal contusion may also occur as an isolated symptom of injury of the spine. It is evidently a sign of irritation of the nerve roots.

56. **Torsion of the Omentum.**—Brüning remarks that torsion of the omentum with incarceration of an inguinal hernia on the right side is generally diagnosed as appendicitis. It requires immediate operative intervention and the possibility of this combination should be borne in mind.

58. **Duodenal Ulcer in Infants.**—Helmholz states that he found duodenal ulcers in eight out of sixteen cadavers of infants who had succumbed to marasmus. He describes these cases in detail with a ninth that terminated in recovery.

Medizinische Klinik, Berlin

March 21, V, No. 12, pp. 419-456

59 *Importance of Serodiagnosis of Syphilis for Treatment. (Bedeutung der Wassermannschen Serumreaktion für die Diagnostik und Behandlung der Syphilis.) R. Ledermann.
60 *Non-Tuberculous Catarrhal Apical Processes. (Ueber nichttuberkulöse Spitzenkatarrhe.) A. Wolff-Eisner.
61 Pathologic Anatomy of Hematogenous Diffuse Affections of the Kidneys. (Ueber den gegenwärtigen Stand unserer Kenntnis der hämatogenen diffusen Nierenerkrankungen nach pathologisch-anatomischen Gesichtspunkten.) L. Jores.
62 *Mechanism and Treatment of Flatfoot Disturbances. (Ueber Insuffizienz des Fusses.) W. Becker.
63 Treatment of Eczema with Ultraviolet Rays. (Erfolge der Behandlung des Ekzems Mittels Uviollicht.) O. Scheuer.
64 Dietetics for Children. (Zur Diätetik des Kindesalters.) H. Lungwitz.
65 Balneologic Treatment of Respiratory Affections and Relations between Affections of the Upper and Lower Air Passages. (Behandlung von Krankheiten der Luftwege in Bad Salzbrunn unter besonderer Berücksichtigung der Beziehungen der Krankheiten der oberen zu denen der tieferen Wege.) G. Kelbling.
66 Pathogenesis of Chronic Habitual Constipation. (Zur Pathogenese der chronischen habituellen Obstipation.) Z. Tomaszewski.

59. **Serodiagnosis of Syphilis.**—Ledermann has applied the Wassermann test in 550 cases as he relates in detail; 81 per cent. of patients in the latent stage gave a positive reaction when they had not taken treatment, while the reaction was positive in 73.7 per cent. of those who had had one or two courses of mercurial treatment, and in only 47.7 per cent. of those who had taken four or more courses. In syphilis of the nervous system positive reactions were obtained in 100 per cent., although the interval ranged from four to twenty-two years. Only 3 of the 107 patients in this class had had from three to five courses of mercurial treatment, and the majority were untreated. The reaction was positive in 16 children with inherited syphilis. He calls attention to the vast importance of this serum test in balneologic practice. Patients apply to the physician at the health resort with a vague history and obscure array of symptoms, suggesting liver and heart affections and nervous disturbances. The physician may suspect syphilis but nothing tangible can be discovered. Serodiagnosis here fills a long-felt want and the health resorts should be equipped for the serum test as an indispensable preliminary to effectual treatment of the visiting hosts.

60. **Non-tuberculous Apical Catarrh.**—Wolff-Eisner presents evidence to prove the existence of catarrhal affections of the apices of non-tuberculous nature, which may be differentiated by the local tuberculin reactions. He believes that many patients now under treatment in sanatoria for the tuberculous are in reality suffering merely from a non-tuberculous apical catarrh. The affection may be the result of direct inhalation of dust or of atelectasis from production of a vacuum during inspiration from obstruction in the nose from some valve-like displacement of the walls. In a case described, a young man was sent to the sanatorium as he said he had night sweats and presented the physical signs of an apical process. But the ocular, cutaneous and subcutaneous tuberculin tests gave negative findings and his stay in the sanatorium exposed him to true tuberculous infection. The case teaches that the biologic and the clinical methods are not antagonistic but supplement each other, throwing unwonted light on diagnosis, prognosis and treatment. When tuberculosis is unmistakable, negative findings with the tuberculin tests indicate an absolutely unfavorable prognosis, but negative findings in these cases of a simple catarrhal process in the apices should reassure as to the absence of tuberculosis. In 12 other cases he was able to affirm with certainty the absence of tuberculosis from the negative findings in patients suffering from tuberculophobia. He adds that the sickness insurance companies go to great expense to cure persons of tuberculosis who are not tuberculous at all, as could be readily learned by systematic tuberculin tests.

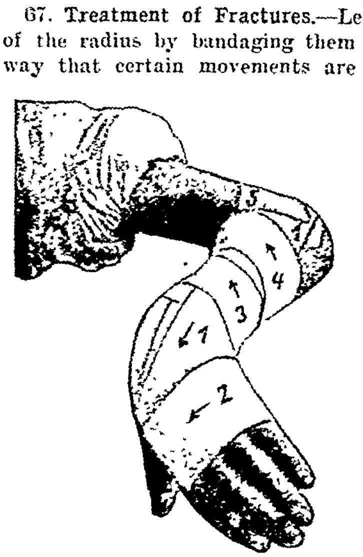
62. **Flatfoot Disturbances.**—Becker states that the three cardinal symptoms of insufficiency of the foot are that long standing is more painful than walking; that a firm, tight shoe gives more relief than an easy house shoe, and that the pains vanish as one sits or lies and sleep is undisturbed. Treatment should aim to support the foot from below, on the inside, thus preventing the weight of the body from pulling on the ligaments and the bones. The metatarsus should be held as still as possible and the insufficiency of the muscles should be combated by massage and orthopedic exercises. He describes the application of these principles to the various forms of insufficiency of the foot, and urges that the feet of children should not be deformed by incorrectly made shoes; the inside of the sole should be on a straight line from the heel to the tip of the great toe.

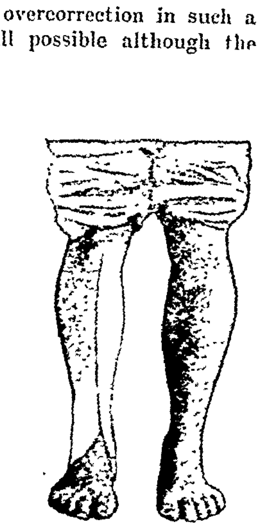
Münchener medizinische Wochenschrift

March 25, LVI, No. 12, pp. 593-640

67 *Treatment of Fractures. (Behandlung der Knochenbrüche.) E. Lexer.
68 Causes of Failure of Antidiphtheria Serum. (Weshalb versagt das Behringsche Diphtherie-Heilserum in gewissen Fallen?) A. Uffenheimer.
69 *Sterile Serous Pleural Effusions with Empyema in the Pleura and Abscess in the Lung. (Sterile seröse Pleuraergüsse bei Pleuraempyemen und Lungenabszessen.) H. Königer.
70 *Simple Method of Determining Diastolic Blood Pressure. (Eine Bestimmungsmethode des diastolischen Blutdruckes.) Ehret.
71 *Roentgen-Ray Treatment of Cancer of Upper Air Passages. (Zur Röntgenbehandlung maligner Neoplasmen der oberen Luftwege.) Mader.
72 Lavage of the Stomach. (Technik und Indikationen des Magenausspülens.) Agéron.
73 Favorable Influence of Arsenic Mineral Waters on Growth of Rabbits. (Einfluss der Durkheimer Maxquelle auf das Wachstum von Kaninchen.) C. Bachem.
74 Wire-Strengthened Gauze for Plaster Casts. (Eine neue Drahtgipsbinde.) Lunckenbein.
75 *Bradycardia and the Adams-Stokes Syndrome. L. Huismans. Commenced in No. 11.

67. **Treatment of Fractures.**—Lexer treats certain fractures of the radius by bandaging them in overcorrection in such a way that certain movements are still possible although the movements which might undo the reduction of the fracture are absolutely prevented. He gives an illustration of his method of bandaging as applied in more than 100 cases of typical fracture of the radius. It avoids all the disadvantages of the immobilizing bandage as also those of no bandage at all. The patient is unable to make either active or passive movements which might dislocate the reduced stumps and yet he can move his fingers freely and also to a slight extent his wrist. The simple flannel or adhesive plaster bandage must be taken off every two days and the parts massaged by the





physician and given a warm bath. *After the first week a* simple spica is all that is necessary, and by the end of the second week no further treatment is required. The physician should inspect the arm every second day. He has applied this principle of immobilization without splint or plaster while retaining the possibility of certain active movements in twenty cases of fracture of the malleolus. The rapid *anatomic* and functional healing should encourage others to try this method. He thinks that it deserves to rank with extension, operative restoration of continuity and removable casts as a typical method of *treating certain forms* of fracture.

69. **Sterile Effusion in the Pleura with Suppuration in the Vicinity.**—Königer relates some experiences in which a putrid abscess in the lung or pleural empyema coexisted with a sterile serous effusion in the pleura. Not being in communication with the infectious focus, the effusion is free from bacteria but it contains numerous polynuclear leucocytes and lymphocytes, the majority being of normal shape. The effusion in these cases is probably a reaction to the influence of toxins from the suppurating process. The physician should not be misled by this harmless appearing effusion, to which Königer applies the name of "cloak effusion"—*Mantelerguss*—as it surrounds and cloaks the main lesion. Microscopic examination will suggest the presence of an infectious focus in the vicinity from the cell content of the fluid.

70. **Measurement of the Diastolic Blood Pressure.**—Ehret applies the Recklinghausen cuff and as the pressure in the cuff is slowly increased he *palpates the radial artery* at the lower edge of the cuff. The pulse shows a sudden change as the cuff induces complete collapse of the wall of the artery underneath. Numerous tests have shown that the pressure of the cuff under which the phenomenon occurs corresponds to the diastolic pressure.

71. **Roentgen Treatment of the Upper Air Passages.**—Mader has devised a Roentgen lamp which is introduced into the throat to expose to the direct action of the rays malignant neoplasms of the upper air passages. He reports satisfactory results from this treatment in several cases. One patient with carcinoma in the lower part of the pharynx was cured by this treatment over three years ago, but lately showed signs of recurrence which yielded again to the same form of Roentgen treatment.

75. **The Adams-Stokes Syndrome.**—*Huismans is convinced* that the brain cortex plays *an important part in the Adams*-Stokes syndrome. In one of the eight cases described attacks are brought on by emotional stress.

Wiener klinische Wochenschrift, Vienna

March 25, XXII, No. 12, pp. 402-438

76 *Organotherapy of Tendency to Cataract. (Lassen sich Linsentrübungen organtherapeutisch beeinflussen?) R. Possek.
77 *Diagnostic Importance of Examination of Blood in Trichinosis. F. Gaisböck.
78 Transition of Night Frights into Epileptic Seizures. (Uebergänge des nächtlichen Aufschreckens zum epileptischen Anfall.) R. Stern.

76. **Organotherapy of Cataract.**—Possek has been experimenting with rabbits, injecting naphthalin to induce the production of cataract and then controlling this tendency by injection of lens substance. The results confirm Römer's announcement in regard to the possibility of specific organotherapy of incipient senile cataract.

77. **Diagnosis of Trichinosis.**—Gaisböck reports two cases and expatiates on the importance of increased numbers of eosinophilic cells in the circulating blood as characteristic of trichinosis. This, alone, is sufficient, he asserts, to differentiate the disease, and he is convinced that if the blood were examined *more* systematically many cases of obscure typhoid and rheumatoid pains in the muscles would be traced to trichinæ.

Zentralblatt für Chirurgie, Leipsic

March 20, XXXVI, No. 12, pp. 409-448

79 *Habitual Dislocation of the Shoulder. (Zur Frage der habituellen Schultergelenksluxation.) R. Wilmanns.
80 Sterilizer for Laparotomy Materials. (Apparat zur Sterilisierung und Erwärmung bzw. Warmhaltung von Tupfern, Kompressen usw. bei Laparotomien.) E. Szili.

79. **Habitual Dislocation of the Shoulder.**—Wilmanns comments on *Dahlgren's* report of his success in 25 cases in which the capsule was *taken up to make it smaller.* Wilmanns' own experience has shown that this making the capsule smaller answers the desired purpose completely, even when there are other complications. Complete and permanent success follows *the simple measure of reducing the size of the capsule* and it is unnecessary to act directly on the other parts of the joint.

Zentralblatt für Gynäkologie, Leipsic

March 20, XXXIII, No. 12, pp. 409-440

81 *Suprarenal Preparations in Cesarean Section. (Adrenalin beim Kaiserschnitt.) M. Bogdanovics.
82 Technic of Dilatation with Tents. (Zur Technik der Laminariadilatation.) O. Piering.
83 Cicatricial Stenosis of the Vagina after Protracted Spontaneous Delivery. (Fall von schwerster Vaginalstenose nach Spontanpartus.) S. Samson.

81. **Suprarenal Preparations in Cesarean Section.**—Bogdanovics reports a case to show the *influence of direct injection* of a small amount of a suprarenal preparation in the wall of the uterus. As the uterus becomes anemic it begins at once to contract vigorously. This striking action of suprarenal preparations *on the puerperal uterus* is exceptionally useful in Cesarean section when labor has not begun or is abnormally weak.

Books Received

All books received are acknowledged in this column and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. A selection will be made for review in the interests of our readers and as space permits.

Atlas of the External Diseases of the Eye, Including a brief Treatise on the Pathology and Treatment. By Prof. Dr. O. Haab of Zürich. Edition 3, Edited by G. E. de Schweinitz, A.M., M.D., Professor of Ophthalmology in the University of Pennsylvania and Ophthalmic Surgeon to the University Hospital. Cloth. Pp. 244, with illustrations. Price, $3. Philadelphia: W. B. Saunders Co., 1909.

Causes of Disability as Applied Under Accident and Health Insurance Polici [illegible] Insurance and Fraternal Examiners, [illegible] idents of Medicine, Attorneys and Cor[illegible] on Harbaugh, M.D., Medical Director A[illegible] Cloth. Pp. 650, with illustrations. Price, $6. New York: The Spectator Co.

Atlas and Epitome of Ophthalmoscopy and Ophthalmoscopic Diagnosis. By Prof. Dr. O. Haab of Zürich. Second American Edition. Edited by G. E. de Schweinitz, A.M., M.D., Professor of Ophthalmology in the University of Pennsylvania and Ophthalmic Surgeon to the University Hospital. Cloth. Pp. 94, with illustrations. Price, $3. Philadelphia: W. B. Saunders Co., 1909.

Report of Committee on Social Betterment. By George M. Kober, M.D., LL.D., Chairman of Committee. Professor of Hygiene, School of Medicine, Georgetown University. Paper. Pp. 281. Published by The President's Homes Commission, Washington, D. C., 1908.

Report of Committee on Improvement of Existing Houses and Elimination of Insanitary and Alley Houses. By William H. Baldwin, Chairman of the Committee. Paper. Pp. 23. President's Homes Commission, Washington, D. C., 1908.

Infant Feeding. By J. S. Fowler, M.D., F.R.C.P., Physician to the Royal Hospital for Sick Children, Edinburgh. Cloth. Pp. 230, with illustrations. Price, $1.50. New York: *Oxford* University Press, 1909.

Studies from the Department of Pathology of the College of Physicians and Surgeons, Columbia University, New York. Vol. XI. For the Collegiate Years 1906-1908. Reprints. Paper.

State Hospitals *Bulletin*, New York. Published Four Times a Year by Authority of the State Commission in Lunacy. Vol I. March, 1909. No. 4. *Paper.* Pp. 702. Single *copies*, 50 cents.

Twenty-third Annual Report of the Ohio Dairy and Food Commissioner for the Fiscal Year Ending Nov. 15, 1908. Renick W. Dunlap, Commissioner. Paper. Pp. 84. Springfield, Ohio, 1909.

The Prophylaxis of Yellow Fever. By G. M. Guiteras. Yellow Fever Institute, Bulletin No. 17. February, 1909. Paper. Pp. 14. Washington: Government Printing Office, 1909.

Annual Report of the Sanitary Commissioner with the Government of India for 1907. Boards. Pp. 146. Calcutta: Superintendent Government Printing, *India*, 1908.

Contributions from the William Pepper Laboratory of Clinical Medicine. Reprints. No. 6. University *of Pennsylvania*, Philadelphia, 1907-08. Paper.

The Story of Two Mosquitoes. By Charles Cummins Hunt, M.D. Cloth. Pp. 29, with illustrations. Price, 75 cents. [Dixon, Ill.: L. E. Edwards.]

Twenty-Second Annual Report of the State Board of Health of Ohio. 1907. Cloth. Pp. 375. Columbus, Ohio.

Nineteenth Annual Report Eastern Indiana Hospital for the Insane, 1908. Paper. Pp. 82.

Biennial Report of the Nebraska Orthopedic Hospital, Lincoln, 1908. Paper. Pp. 21.

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Original Articles

THE INSANE DIATHESIS

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CHICAGO

Early recognition of temperamental qualities which in the child, youth or adolescent indicate the existence of a predisposition to insanity, may enable the family practitioner, by timely and judicious advice, to counteract or correct the defect and so happily lessen the liability to, or entirely prevent the development of, the disease.

The phenomena which the condition presents may be readily accounted for by assuming a defect or defects in the neurons, the cell units of which the nervous system is composed, of such a nature that stimuli from the environment may not properly reach the neurons of the cortex, or, having done so, the impression made there may not be sufficiently deep and lasting or, in other words, well elaborated. Keeping in mind this conception of neuronal defect, it is easy to understand how certain individuals fail to respond to educational influences, moral or intellectual or both.

The subject of this diathesis may present palpable somatic abnormalities suggestive of similar imperfections in the nervous system. In the order of their importance, when they exist, the most prominent of these relate to deformities of the external ear, cranial and facial asymmetries, anomalies of the jaws, teeth and sexual organs. It should not be forgotten, however, that individuals are frequently seen who present conspicuous signs of bodily stigmata, as commonly accepted, but who at the same time never show any of the mental characteristics of the insane temperament; and, conversely, well-marked instances of alien mental proclivities are occasionally found associated with rare physical perfection. I refer now, of course, only to congenital cases; the condition last named might not be unexpected when the diathesis had been acquired.

It follows, then, that, notwithstanding the significance of bodily blemishes, a diagnosis can only be arrived at finally by an appeal to existing mental characteristics, which may be conveniently, but perhaps somewhat inaccurately, described as symptoms.

Hereditary influence is generally distinct and frequently conspicuous. That marked physical perfection may be inherited from one parent while the characteristic mental peculiarities descend from the other is undoubtedly true, though exceptional. In a majority of instances, the inheritance is mainly maternal, and it is similar; that is to say, similar peculiarities are transmitted.

It is convenient to separate the symptoms arbitrarily into those (*a*) occurring in childhood, that is, from birth to puberty; (*b*) in youth, embracing the age from puberty to 18, and finally (*c*) adolescence, extending from the eighteenth to the twenty-sixth year. In infancy and early childhood there is probably very frequently an increased liability to convulsions, especially at teething or at the onset of exanthemata, and later to such disorders as enuresis, night terrors, chorea and habit spasms. Sexual precocity, sometimes leading to early masturbation, is also occasionally seen during this period.

Passing on to the mental characteristics, the field is such a broad one that I can scarcely hope to do more than mention a few salient features, without attempting a definite description or discussion of them. Among the earliest manifestations may be mentioned violent outbreaks of temper, persistent insubordination to well-directed measures of discipline, extreme jealousy, selfishness and cruelty. Such a child usually—not always—falls behind his grade in school, his most conspicuous failure being in mathematics. His memory may be good, he may imitate well and, indeed, analyze somewhat, but he can rarely construct, except by imitation, nor can he coordinate well. Though he may be exceptionally brilliant even in mathematics, his extreme selfishness renders him antisocial, playmates do not respect his wishes to his liking; contact with them, therefore, irritates him.[1] He becomes solitary and left without resource; he is much in the society of his elders and very commonly forms a reading habit, which is often erroneously regarded as evidence of mental superiority.

At the approach or with the advent of puberty these characteristics may greatly diminish, or, if only moderately marked, entirely disappear. On the other hand, they may become accentuated at this time and, indeed, new ones may be added. These latter usually revolve about the sexual sphere, so that the subject suffers more or less emotional disturbance when confronted by a person of the opposite sex. This may take the form of nothing more definite than general nervousness, tremor, blushing or clammy perspiration, or it may provoke some strong morbid impulse. Cases presenting this last-named feature are liable to develop into the various sorts of "Jacks" now and then obtaining notoriety as rippers, huggers, kissers and clippers in the case of young men or elopements with the family coachman on the part of girls; but it is not with the developed disease that I am now concerned.

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[1] I have in mind a girl of 14, belonging to a distinguished family, who easily led her class in mathematics, but would steal from the rooms of her schoolmates so that she had to be kept at home. Happily this was one of the few cases of the kind that responded well to treatment, as in the course of about a year the morbid tendency had permanently vanished. Nevertheless, I should regard any stress as parturition through which this patient might have to pass with increased anxiety.

Occasionally there is a morbid attraction toward individuals of the same sex—homosexuality—leading to mutual masturbation or other unnatural sexual practices. Morbid jealousy, leading to homicide, may find its origin here. If the individual has had religious instruction during childhood, there is likely to be some morbid manifestation of religious feeling which is almost invariably associated with more or less sexual disturbance. A severe régime accompanied by a desire to adhere literally to biblical and pastoral injunctions, if persevered in, is suggestive. Penance is rather welcomed and likely to be overdone. Extreme selfishness and egotism, however, are prominent in this no less than in the various forms of licentiousness and debauchery as manifested in the subjects of this temperament.

In adolescence, the innumerable responsibilities of an independent existence have to be met. Many new propositions and problems are presented. Solution of the problem of perpetual motion is often sanguinely attempted by these subjects and tenaciously persevered in through failure to comprehend Newton's law of gravitation. Revolutions of various kinds are advocated very earnestly through inability properly to understand and to estimate the influences which have brought about and perpetuate the conditions complained of. By reason of the noise they make these people occasionally attract attention to an evil which has survived the causes making it a necessity, when abler minds introduce a practical remedy. This diathetic individual is often hailed as a reformer, while, as a matter of fact, he is never anything more than an agitator. He has no constructive talent; he can demolish and sometimes even analyze superficially. He never works out a reformation by himself. This psychopathic or diathetic agitator is always earnest and sincere; he is frequently manipulated, however without suspecting it, by the professional agitator, who is invariably a hypocrite. They both pose as reformers and the indiscriminating public often accepts and applauds them as such.

The ego is always relatively stupendous. even in those who shrink from social contact. They are forced into retirement, they maintain, through the objectionable qualities of other people. Intolerant of criticism, the companionship of the domestic animals suits them best and they not infrequently come to believe that there is a peculiarly intimate understanding between themselves and their pets. I knew one of these individuals to assert seriously that he was positive horses and dogs had souls, but was not yet quite decided as to cats.

These individuals who continue refractory to well-directed measures of dicipline readily fall into the criminal (by defect) class when age releases them from parental restraint, and thus their retrograde tendencies are vastly accelerated. All types are liable to drift into paranoia—chronic delusional insanity or monomania—in which the delusional state usually consists largely of an exaggeration of previous personal peculiarities. The reformer proposes to replace a monarchy with a republic; the recluse absolutely refuses to be seen by any one; he is tormented by the mysterious machinations of enemies, darkens his room and insists on having his food passed in to him; the inventor discovers new and mysterious forces; the sexual pervert finally yields to his impulses, removes a woman's shoe by force and escapes with it, clips the hanging braid from a girl's head, or kills a woman and mutilates her genitals; the homosexual pervert kills some one in a fit of jealousy, and so on. They are all likewise more than ordinarily liable to attacks of acute insanity developing from a relatively slight cause and from which recovery is often incomplete.

If Maudsley's admirable working definition of insanity be accepted, however—"a disease of the brain causing a change of thinking, feeling and acting, of such a nature as to incapacitate the individual from supporting the ordinary relations of life"— then only a very small minority of those who present unmistakable signs of the insane temperament, as above described, ever actually become insane. They are commonly spoken of as odd. queer, eccentric or even as cranks. These peculiarities constitute no part of genius though they are occasionally associated with brilliant talents.

It is a matter of common observation that under favorable circumstances, or sometimes even in spite of unfavorable circumstances these characteristics may greatly diminish or entirely disappear. The person is said to outgrow them. Influences which stimulate and strengthen the natural tendency to overcome these defects may, therefore, fairly be regarded as measures of treatment. The essential indications to be met are, as far as possible, to promote the health of the neurons and to provide them with such exercises as is best calculated to develop in them a normal degree of potential activity. The former object will obviously depend on general hygienic measures, which need not be discussed here. The means that must be used to accomplish the second object are mainly educational, moral and disciplinal. To decide on the proper application of these forces to individual cases is not always easy, but to secure it even when the indications are obvious is often impossibe. In childhood, the first requisite to this end is obedience. When, however, this element of government is once firmly established it should be used temperately and kindly. Short, perfectly prepared lessons, frequent reviews, liberal diversion. patience, perseverance and consistency on the part of guardians and teachers are a few of the leading elements of successful management. How frequently it happens that a child who has long been regarded as well-nigh incorrigible quickly and permanently becomes a model pupil on the advent of a new teacher.

Unfortunately, as the condition is so strongly marked by heredity the home influences are likely to aggravate rather than to improve it, so especially in early childhood we are often unable to suggest any other practical means of relief, both because it is difficult and appears cruel to separate a child of tender years from home and family, and because it is not always easy to find a place for him where all desirable influences will surely reach him. A well-regulated boarding school offers the best solution of the problem. There inevitable contact with a variety of other children and moral discipline are in constant operation, and these are all forces of the utmost importance, not only to the children of this diathesis but to normal children. To be sure. that peculiar bond of tenderness and affection naturally existing between mother and child, and whose value when occurring between normal individuals can not be overestimated, has to be yielded; but, under the circumstances hypothecated, this may not be a very weighty concession.

In youth. the influences recommended for childhood should be continued and especially an extra effort should be made to develop the judgment. The person should be encouraged or even frequently compelled to act on his own responsibility. This he will always attempt to shirk, and the fond parent will almost invariably finally, if not at first, accept his excuses. Particularly youths of this temperament should not be forced to comply with some arbitrary parental conception as to their life work. This ought to be decided late and only after a careful scrutiny of their talents and tendencies. It is in these cases, if not indeed, in all cases properly a problem of adolescence.

Unfortunately, many individuals with this temperament are impelled by undue activity and a weak judgment into speculative enterprises, which of course, exposes them more than anything else to the liability of the development of their latent malady. Practically, it is not nearly so difficult to decide on an occupation or course in life that would be desirable for this or that individual, as it is to secure it for him.

The marriage of two young people of this temperament furnishes some of the darkest chapters of domestic discord and disaster ever written. When they have once fallen in love, however, the mischief has been done, for they can rarely be persuaded even to postpone their nuptials, while violent and forcible measures of interference, even if effective, are liable to precipitate the development of insanity. Unless by strategy he can offer some plausible suggestion that would involve separation and delay, the physician must observe with patient composure the early scenes of a drama, apparently merry enough, but which he knows full well is likely only too soon to be fraught with passages of the most pitiful pathos and perhaps even tragedy.

100 State Street.

CARCINOMA OF THE BOWEL AND OF THE APPENDIX IN THE YOUNG *

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In no part of the body is the onset of cancer more insidious than in the bowel. As it is a local disease at first and becomes disseminated later on, an essential for successful treatment is early diagnosis, and anything tending to aid in this respect is of great practical advantage to the surgeon. It was formerly thought that carcinoma of all structures occurred in middle or later life, and a strong point in the differential diagnosis between carcinoma and an inflammatory mass, or a benign growth, has been the age of the patient. If the age were 40 years or more the chances seemed to favor cancer; under 40 years the likelihood of carcinoma apparently decreased with decreasing years, till its occurrence in childhood has been looked on as a pathologic curiosity.

Recent reports, however, seem to show that carcinoma of the bowel, and particularly of the appendix, is met with in the young more frequently than was formerly supposed. During the past year there has been a large amount of literature on cancer of the appendix. In most cases reported one is struck by the youth of the patient. Thus, Harte[1] collected reports of 92 cases of carcinoma of the appendix and finds 4 cases in patients under 10 years of age, 13 between 10 and 20 years of age, and 34 between 20 and 30 years of age. The age of 4 patients is not given, so of the 88 patients with carcinoma of the appendix whose ages are known, 51 are under 30 years of age. Harte is impressed with this fact and explains it with the statement that "a large percentage of all carcinomatous appendices are found as a result of operations for appendicitis, and most operations of this character are done between the ages of 10 and 40 years." He believes that small foci of cancer may be found in other parts of the intestinal tract if carefully looked for.

If cancer of the appendix be discovered more frequently in the young because the age of the patient operated on for appendicitis is usually under 40, we would expect to find cancer frequently in other organs usually removed in the young for inflammatory conditions. No one has found any large number of carcinomata in the Fallopian tubes, though they are often removed in the young for inflammatory conditions. Probably the largest number of curettements is done during early child-bearing period, and though the scraping may be carefully examined, it is rather rare to find cancer of the uterus under 35 years of age.

The most probable explanation of the occurrence of such a large proportion of cancers of the appendix in the young is that it is due to the peculiar character of the appendix. Carcinoma is a malignant tumor of epithelial origin, and sarcoma a malignant tumor of connective tissue origin. We know that connective tissue is a simple and hardy tissue, requiring but little nutrition, and is able to overcome difficulties and live under conditions that would be impossible for the more delicate and highly differentiated epithelial tissue. Consequently, we find the connective tissue malignant tumor (sarcoma) can overcome the obstacle of the marked resistance of youth which the epithelial malignant tumor (cancer), being more delicate and a higher order of tissue, can not do. So cancer can gain a foothold, as a rule, only when the resistance of youth has been partly lessened by advancing years; it therefore usually begins in middle life or in old age. The appendix is a vestigial organ; its tissues are often irregularly arranged and its size and blood supply are very variable. It is a rule in anatomy that the more important an organ is the less liable are great variations to occur. A small difference in the size of an important organ like the liver or heart would be most noticeable, yet it is not uncommon to find appendices varying in length from one to six inches. The poor resistance the appendix offers to inflammation is a matter of common knowledge. It is but natural to expect, then, that the resistance to cancer of such an irregular and vestigial organ as the appendix would be very low even in the young, whose other tissues might be fully able to withstand the onslaught of this disease.

The reasons for the occurrence of cancer in the bowel or appendix in the young are these: 1. There may be a weakened resistance in patients whose tissues are prematurely old as a result of hardship or constitutional disease; this condition may, however, be purely local, as in the case of the appendix, in which, on account of the unimportance of this organ to the physiology of the body and its consequent irregular and uncertain structure, resistance to cancer is of a low type. 2. The other reason for the appearance of cancer in the young is that this disease may take a peculiarly virulent form. In other words, a weakened resistance may permit cancer of an average type to gain a foothold, or a cancer of unusual virulence may overcome a normal resistance.

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* Read at the Tri-State Medical Association of the Carolinas and Virginia, Charleston, S. C., Feb. 17, 1909.

[1] Carcinoma of the Appendix, Ann. Surg., June, 1908.

It has often been noted that cancer in the young is peculiarly likely to be fatal and exceedingly difficult to cure. This is true as a rule, and will readily be appreciated when the cause is either a general loss of resistance on the part of the patient, or the great virulence of the disease, or probably a combination of these two causes. But when that lack of resistance is purely local and due solely to the structural weakness of the appendix, there is no reason to expect any greater degree of malignancy than when cancer develops in persons of more advanced age. On the contrary, if the patient is otherwise of good resistance it seems that the carcinomatous process would be limited by the normal resistance of the other tissues to that portion of the body where the local lack of resistance exists. This is borne out by the fact that, though cancer in the young is usually peculiarly likely to be fatal, in the large majority of cases operations for cancer of the appendix have been followed by no recurrence after a number of years. When cancer originates in an organ whose anatomy and physiology are fixed within definite limits, and whose important functions connect it closely with the rest of the body, it is not a question of a local lack of resistance, but this defect must be shared, to some extent, by other tissues. If the development of the cancer is due to a peculiar virulence of its cells the outlook is grave wherever the cancer originates.

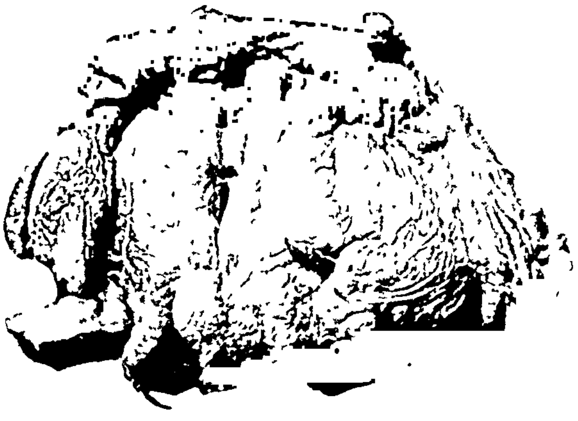

Fig. 1.—Photograph of the tumor before it was opened.

The case reported below is an example of an unusual form of cancer which seems to be prone to originate in the young. It does not proceed with the same rapidity that would be expected from a cancer originating in an important structure in the young. In this instance the origin and course of the cancer may be due to the fact that in the life history of this peculiar cell an unusual change takes place which results in the formation of colloid material within its substance, but not in the surrounding tissues, and after the cell has gained a foothold the colloid which develops as the cell grows lessens its virulence. The tumor, on the whole, presents on palpation and gross inspection the ordinary characteristics of a scirrhous growth, being firm and hard to the touch.

Patient.—Mrs. W. C. W., white, aged 23. Admitted to the hospital Oct. 13, 1906. Discharged, Nov. 15, 1906. Referred by Dr. J. B. Bailey, of Clayville, Va., and Dr. E. W. Gee, of Richmond, Va.

History.—About four weeks before admission to the hospital the patient had been delivered, normally, of a healthy baby. She had suffered with constipation for a number of years. About three days before admission she had severe colicky pains in her abdomen, with absolute obstruction, and gradually increasing tympanites.

First Operation.—A median incision was made. Both large and small intestines were distended. Exploration with the finger disclosed a hard mass involving the lower part of the sigmoid. On account of the great distention, this mass could not be inspected. The patient's condition would not permit of a prolonged operation, so the descending colon was drawn into the wound, fastened with sutures, packed around with gauze, and opened.

She recovered promptly from the operation, discharging large quantities of gas and fecal matter.

Second Operation.—On Oct. 24, 1906, the patient was again operated on under ether, an incision being made in the left rectus, exposing the mass that had been previously felt. It was dissected loose and brought into the wound. The tumor was in the sigmoid, adherent to the broad ligament and abdominal wall, and easily separated. It was two inches in the longitudinal diameter of the bowel and about one inch thick. The tumor replaced the wall of the bowel and almost occluded the lumen. It was hard and firm, the line of demarcation with healthy bowel wall at each end was sharp but irregular, and the mucous membrane seemed to be preserved on the lumen side of the tumor. Above and below the tumor, in the wall of the sigmoid, were small nodules that looked like tubercles, pin-head size. Similar nodules were scattered over the mesentery and the peritoneum of the broad ligament. Because the mass was thought tuberculous, on account of the apparently tuberculous nodules and the age of the patient, it was excised. The irregularity of the bowel ends and its vascularity made it advisable to insert two rows of sutures. The inner row of chromic catgut in a round needle secured all bleeding points and approximated the bowel ends. Outside of this was placed a continuous right-angled suture of silk penetrating all coats. Through a stab wound drainage was carried down to the site of the operation and the wound was closed.

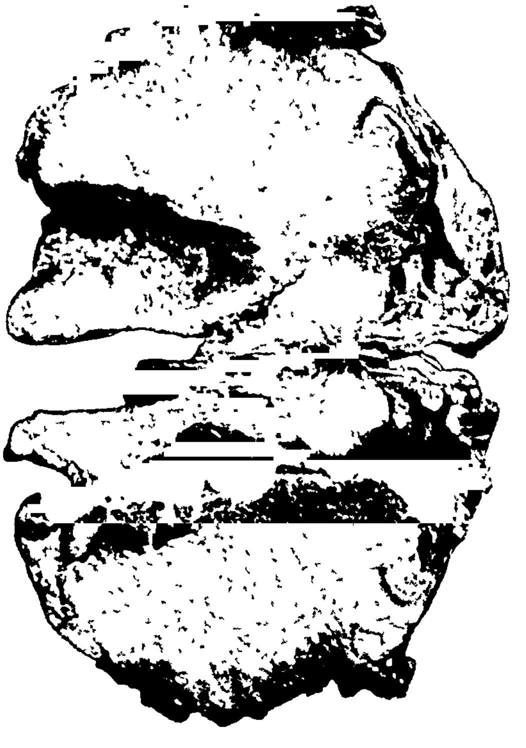

Fig. 2.—Photograph of the tumor from the lumen of the bowel after section.

The patient made an uneventful recovery. The artificial anus gradually closed without any further operation. A section of the specimen showed that practically all of the bowel wall except the mucous membrane had been destroyed by the growth, which was thick and firm. The caliber of the intestine at this point had been reduced to about the size of a uterine probe. The immediate cause of the acute obstruction was the absolute blocking of this narrow canal by a clove. The patient left the hospital thirty-three days after admission in good condition and rapidly improved in health and weight. For ten months she did well, but in August, 1907, further symptoms of obstruction developed.

Third operation.—Sept. 20, 1907, she was readmitted to the hospital and again operated on. As had been anticipated, there was recurrence, not only in the bowel wall, but on the parietal peritoneum and all the adjacent tissues. Nodules were scattered along the whole length of the descending colon. It was impossible to excise the neoplasm, so the upper part of the descending colon was brought into the wound and a colostomy performed.

The patient left the hospital after three weeks and returned to her home. She gradually failed and died about three months later.

Microscopic Report.—The essential cell of the neoplasm was one with which I was unacquainted, so the specimen was sent for examination and report to Dr. Joseph Bloodgood, of Baltimore, to whom I am indebted, not only for the following report, but for the photomicrographs which show strikingly the peculiar cell of this growth:

> "Section from one of the nodules. There is the dense zone of fibrous tissue, with a zone of tumor tissue to one side, but on the other side of the zone of fibrous tissue there are irregular areas of tumor cells. The morphology of the cell and its alveolar arrangement is better shown in the smaller areas than in the larger. The cell is of the cuboidal epithelial type of unusual morphology; the majority of the cells contain a material which does not take the stain—colloid or mucoid material. When the cell is entirely filled the nucleus is pushed to one side and becomes eccentric; there are areas where the entire cell is replaced by this material. Even in the larger tumor there is a definite, but thin fibrous-tissue mesh-work enclosing larger and smaller areas of cells. I believe the tumor is a carcinoma with colloid degeneration, a tumor which produces multiple metastases, and has been observed in young people. It can be called carcinoma cubocellulare colloides."

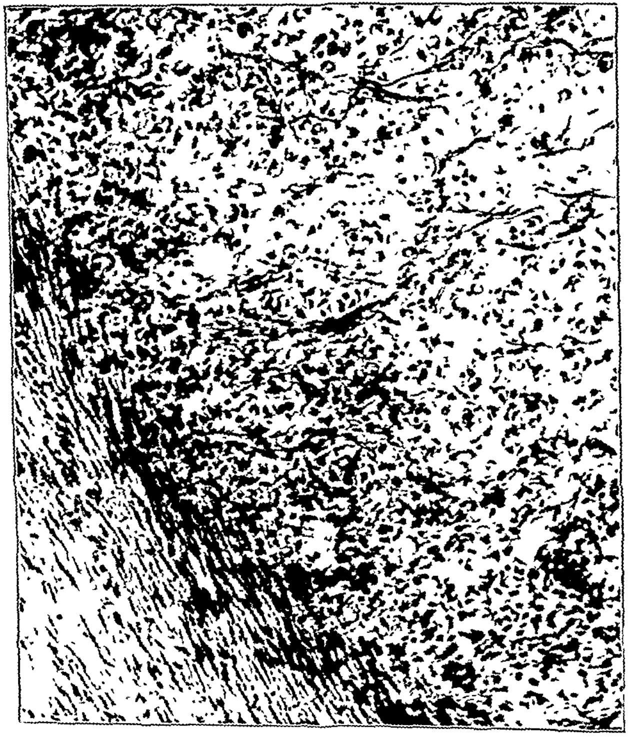

Fig. 3.—Photomicrograph of a characteristic field of the neoplasm herewith reported.

The cell appears edematous. Its nucleus is nearly always eccentric, which seems to be due to the fact that the colloid material accumulated in some portions of the cell more rapidly than in others and so shoved the nucleus to the periphery. On examining the photomicrograph of the higher power some cells may be seen to resemble, in a general way, a section of the eye, the clear portion corresponding to the cavity of the eyeball and the eccentric displaced nucleus the lens and cornea. Of course, it will be appreciated that if the cell happens to be cut in this direction the nucleus will be found as described. Those cells whose nuclei appear to be in the center probably have an eccentric nucleus, but, the cell being cut in a different axis, it looks as though the nucleus were central. This appearance is frequently encountered in a spindle-celled tumor when, instead of the cell being cut longitudinally it is cut transversely, which makes the section of the spindle cell look like a round cell.

Aside from its pathologic feature, this case brings to our attention the possibility of cancer of the bowel originating in the young and shows that when dealing with neoplasms of the large intestine we should not exclude carcinoma because of the youth of the patient. As regards prognosis, when cancer in the young is not due to a lack of general resistance in an important organ or to a peculiar virulence of the disease, but merely to the lowered resistance of a vestigial organ, as the appendix, the chances of permanent cure after excision are excellent.

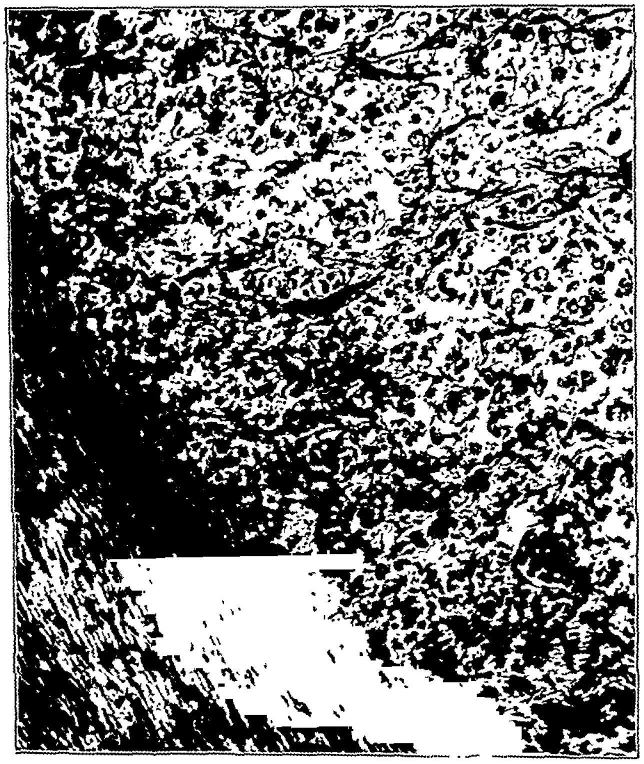

Fig. 4.—Photomicrograph of the same field as shown in Figure 3 under higher power. *Note eccentric nuclei and dense connective tissue.*

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Human Intestinal Juice.—Salzberg-Faifel (*Arch. internat. de physiol.*, 1908, vi, 81). From a human intestinal fistula relatively normal and pure intestinal juice was obtained. The intestinal juice was markedly alkaline. The alkalinity was due to the presence of alkaline phosphates rather than to carbonates. Expressed in terms of sodium carbonate the alkalinity ranged from 0.35, 0.46 to 0.56 per cent. The average specific gravity was 1.014; the average freezing point, 0.615 degrees C. On chemical analysis no sugars or other substances which reduce Fehling's solution were present. There were no coagulable proteids. The juice was 98.2 per cent. water and 1.02 per cent. non-combustible material. It contained the following ferments: Erepsin, amylase, invertin and enterokinase.

EROSIVE AND GANGRENOUS BALANITIS

THE FOURTH VENEREAL DISEASE

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Simple balano-posthitis, due to retained smegma, the secretions of gonorrhea, chancroidal infection and the decomposition of diabetic urine, has long been recognised by the various authors on genitourinary surgery. A specific form of balanitis has been recognized by French authorities for many years and more recently by German authors. The subject seems to have received but slight attention in this country. After a careful survey of the American text-books, including Watson and Cunningham, Keyes and Keyes, Fuller, Taylor, White and Martin, we are unable to find a description of a balanitis due to a specific organism.

At the medical congress in London in 1881 Simon[1] demonstrated a yeast, together with many motile spirochetes, in the secretions from the sulcus coronarius of a diabetic patient.

Bataille and Berdal[2] in 1889-1891 separated and described a contagious form of balano-posthitis, which they later called *balano-posthite érosive circinée,* and demonstrated its contagiousness experimentally.

Ceillag and Drulle[3] found a spirillum in men which was identical with those on the clitoris of women.

In September, 1904, Scherber and Müller[4] examined fifty cases of balanitis erosiva in Finger's clinic; they were able to isolate a spirillum and a vibrio and to confirm the findings of Bataille and Berdal. The same observers, stimulated by their findings in balanitis erosiva, examined six cases of gangrenous balanitis, and were able to demonstrate the same group of organisms. To those men belongs the distinction of establishing balanitis erosiva circinata and balanitis gangrenosa as a distinct malady, which they called, and, we believe, justly, a fourth venereal disease.

Recently we had under our observation five cases of this specific form of balanitis. Of these we wish to report in detail three case histories.

In presenting this subject we shall have to consider briefly the spirochetal diseases. These include:

1. Recurrent fever.
2. Frambesia tropica.
3. Dourine, a venereal disease of horses.
4. Syphilis.
5. Vincent's angina and other ulcerative diseases of the mouth.
6. Gangrenous processes occurring in various parts of the body, and including the disease under discussion.

The first three diseases, recurrent fever, dourine and frambesia tropica, are of interest to us only inasmuch as they are each due to a specific form of spirochete. Syphilis is now conceded by all to be due to the *Spirochœta pallida*, whose morphology has been so well described as to need mention only.

The spirochetes found in Vincent's angina, ulcerative stomatitis, noma and other gangrenous processes are so closely associated with balanitis erosiva or gangrenosa as to merit special discussion.

It has long been known that several forms of spirochete were normally found in the mouth. The following, on account of their intimate relation to our subject, will bear a somewhat detailed description:

1. *The Spirochœta buccalis of Cohen.*—This organism is 10 to 20 mm. long by 0.5 mm. wide. It often appears threadlike or resembling a whip; the windings are long, the ends are sharp and end in the center of the spiral; they may be ciliated. In the hanging drop they are very refractile and show a bending and snakelike motion. They are very active and vary greatly in size and thickness. In comparison with other forms of the spirochete they are characterized by their greater width. In the body are found at times red nuclear granules.

2. *The Spirochœta dentium of Koch.*—This spirochete is the smallest and most delicately formed. It usually measures about 4 to 10 mm. in length and is so thin that the breadth is not measurable. Its windings are short and regular. Its elasticity is marked.

This form simulates the *Spirochœta pallida* somewhat closely. Whether or not these two forms represent varieties of one and the same organism has not been demonstrated.

These organisms have the following features in common:

1. Drying easily kills them.
2. They stain in the cold with the ordinary stains.
3. They are Gram-negative.
4. With the Giemsa stain they are colored bluish-red.
5. They are anaerobic.

Of the spirochetal diseases that occur in the mouth we have Vincent's angina, noma and mercurial stomatitis. In all these conditions the exciting cause seems to be the same.

In Vincent's angina the etiologic factors are a vibrio and a spirochete. This was confirmed by Rauchfus and Plaut in 1893-4. The primary location is usually on the tonsil and edge of the gums and is characterized by the formation of a pseudomembrane which is easily removed, disclosing ulcers. These may become confluent; sometimes they are very superficial. The submaxillary and retromaxillary glands are enlarged, firm, but rarely suppurate. The constitutional symptoms are slight.

Following the exanthematous disease, particularly measles and diphtheria, there occurs at times a gangrenous stomatitis or noma, characterized by extensive gangrene of the cheek, which may extend to the maxillary bones, in most cases being followed by death.

The first symptom to attract attention as a rule is the offensive odor of the breath. On examination a black necrotic spot is seen on the inner surface of the lip or cheek, surrounded by tissues that are intensely swollen and edematous. This rapidly becomes in turn gangrenous and we may have extensive sloughing of the tissues. In the border of the necrotic membrane we find the fusiform bacillus and the spirochete in pure cultures.

Matzenauer[5] asserts that noma and hospital gangrene are due to the same cause, which is identical with the organism found in Vincent's angina.

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[1] Simon, O.: Balano-posthomykosis, Tr. Internat. Med. Cong., London, 1881, iii, 138.

[2] La balano-posthite érosive circinée, Méd. moderne, 1891, ii, 340.

[3] Quoted by Hoffman: Centralbl. f. Bacteriol. u. Parasitenk., 1906, xli, 741.

[4] Arch. f. Dermat. u. Syph., lxxvii, 77.

[5] Matzenauer, R.: Noma und Nosocomialgangrän, Arch. f. Dermat., 1902, lx, 373; ibid., 1901, lv, 67.

Rona[6] in 1905 examined three cases of noma following measles. His conclusions are as follows:

> Noma begins without exception in gangrenous stomatitis. If the fusiform bacillus and spirochæte found in the mouth are etiologic factors in gangrenous stomatitis, since the organisms are found in such abundance in noma, it must be due to the same cause.

Since all these conditions are favored by lowered resistance, which is produced by the exanthematous diseases and the administration of mercury, it is not to be wondered that organisms that are saprophytic can easily become pathogenic.

Lichtwitz,[7] Sabrazis[7] and Silberschmidt[8] found the organism in the antrum of Highmore, Miller[9] in an alveolar abscess, Pollard[10] in an abscess of the leg.

Perthes,[11] Krahn,[12] Ellerman[13] and Buday[14] found the organisms in the deeper layers of the tissues; Scherber and Müller[4] found them in the lumen of the vessels, whence they may disseminate and produce a spirochetal septicemia or cause metastatic abscesses. Plautt[15] found the organism in a tonsillar abscess, Raoult and Thiery[7] in a subtonsillar abscess.

Schmorl[16] demonstrated the organism in abscesses of the liver, spleen and lung, and other observers have found them in abscesses of the brain and appendiceal stump; so we see that there is an abundance of clinical evidence showing the pathogenicity of the organism.

In the preputial sack the moisture and warmth favors the growth and, as these organisms are anaerobic, this location is an ideal culture ground.

DEFINITION

Erosive or gangrenous balanitis is a specific infectious venereal disease, caused by a symbiosis of a vibrio and a spirochete, with local and constitutional symptoms varying with the severity of the infection.

ETIOLOGY

The first predisposing cause is a long tight foreskin, which seems to exclude the air. This must always be present in a greater or less degree, as the organisms which produce this form of balanitis are anaerobic. The second is wetting the labia or penis with saliva. As this form of balanitis is so closely associated with noma, Vincent's angina and mercurial stomatitis in its bacteriology, it is highly probable that the cause of the infection is the same in the two diseases. The third is unnatural sexual relations due to alcoholism.

The existing cause of this form of balanitis, as stated before, is a symbiosis of a vibrio and a spirochete. These two organisms are always found together, but, as the spirochetes are found under normal conditions in the preputial sac, it is highly probable that the pathogenic factor is the vibrio. This organism occurs most abundantly in the deeper layers of the necrotic membrane, while the spirochetes are found less abundantly and in the upper portion of the necrotic membrane. Both have been demonstrated in sections, in the blood vessels and in the inguinal glands.

The vibrio grows under anaerobic conditions on serum agar. It occurs singly or in chains of two or more individuals. It is a slightly curved rod-shaped organism with pointed ends, measuring from 2 mm. in length to 0.8 mm. in width. It stains by the ordinary dyes and is Gram-positive, although the decolorization must be performed very carefully, as the organism gives up the gentian violet very readily. It is preferable to use 70 per cent. alcohol for this purpose.

The spirochete is Gram-negative, but stains with the ordinary dyes; with the Giemsa stain it takes a bluish red. These organisms are best seen with the dark ground illuminator. They average from 6 to 30 mm. in length and about 0.2 mm. in width. The windings are not acute and the ends of the organism terminate in the center of the spiral. The motion of the organisms is very rapid; they travel from place to place, resembling a small snake; they have a rotary motion, but this is not as pronounced as the backward and forward motion.

PATHOLOGY

The pathologic condition in the milder forms of balanitis erosiva circinata consists simply of a flaking off of the epithelium, leaving small superficial erosions. When the desquamation is more marked there are bright red ulcers, which are surrounded by a small white zone, the remains of the necrotic epithelium.

In the surrounding tissue there is an exudation of leucocytes and plasma. The organisms are found in the secretions from the erosions, but more abundantly in the necrotic membrane. At times they can be demonstrated in the tissues and blood vessels, as shown by Scherber and Müller.

In the more severe grades of infection there is more venous stasis and more exudation, resulting in marked phimosis which predisposes to gangrene. As Scherber and Müller pointed out, the whole condition is one of degree only, but for clinical purposes we may distinguish two types: (1) Balanitis erosiva circinata and (2) balanitis gangrenosa.

SYMPTOMS

Balanitis erosiva circinata commences with the appearance of one or more small grayish white patches in the preputial sack. At the time of the development of the erosion an offensive thin pus is produced, with a characteristic stinking odor and of the usual yellowish-white color; in the more severe cases it becomes grayish-white or grayish-brown.

In the mild cases the foreskin may be easily retracted, but in the more severe forms marked phimosis develops; there is considerable itching and burning behind the glans; the act of urination is practically without pain. In contradistinction to the gangrenous form in this type of the disease, constitutional symptoms are slight or absent.

Generally the sulcus coronarius is the site of predilection; next, the adjacent part of the prepuce, and, last, the glans.

As the process follows no hard and fast lines there are certain deviations from the above picture. The process may be limited to the glans and the inner surface of the foreskin be unaffected. This may be extreme or mild, but is always present on the covered portions of the glans.

The inflammatory condition may remain a purely erosive superficial process and may recover spontaneously, or by the aid of mechanical cleansing and antiseptic treatment.

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[6] Arch f Dermat. u. Syph., lxxiv, 171.
[7] Quoted by Feldmann: Wien. klin. Wchnschr., 1906, p. 696.
[8] Centralbl. f. Bacteriol., 1901, xxx, 159.
[9] Deutsch. med Wchnschr., 1906, No. 9, 348.
[10] Wien. klin Wchnschr., 1905, xviii, 1236.
[11] München. med. Wchnschr., 1902, xlix, 1968.
[12] Mitt a. d. Grenzgeb. d. Med. u. Chir., vi, 202.
[13] Centralbl f. Bacteriol., xxxviii, 383.
[14] Beitr. z path. Anat. u. z. allgem. Path., 1905, xxxviii, 255.
[15] München. med. Wchnschr., 1907, liv, 340.
[16] München. med. Wchnschr., 1907, No. 4, p. 188.

In a number of cases the process does not remain superficial, but develops deep diphtheritic and gangrenous ulcers, which complicate the clinical picture in many ways.

In some cases when one is able to retract the foreskin, one sees after removal of the pus, inside of the erosions small round ulcers varying in size from a pin-head to that of a pea.

These ulcers are moderately deep and on the whole flat and surrounded by a red zone. They are covered by a closely adherent pseudomembrane. In other cases the ulcers are more extensive and deeper, the average size being about that of a dime. These may become confluent and extend over the whole surface of the sulcus or the inner surface of the foreskin.

These balanitic ulcers are of a somewhat irregular outline and are surrounded by a small inflammatory slightly elevated border. This border is clean-cut and the sides somewhat slanting; the base is uneven with a firm yellowish-white or yellowish-brown membrane, which is often edematous and swollen. When more edematous this false membrane appears as a sort of friable slime. Here and there may be hemorrhagic spots which sometimes give rise to hemorrhages from the base of the ulcer.

In the severe forms the constitutional symptoms are more marked. Scherber and Müller noticed in a majority of their cases chills and fever and at the onset vomiting, the average temperature ranges from 100 to 101 degrees. There is marked edema, the external skin being red and edematous; the infiltration may extend to the root of the penis in some cases. The dorsal lymph cord is usually palpable and the inguinal glands are enlarged, but not painful. Unless the phimosis is complete there is no pain on urination; when, however, the urine is not able to pass freely and dilates the preputial sac there is considerable pain.

The discharge is the most profuse in this type of the disease. By gently irrigating the preputial sac with sterile water and wiping the external urethral orifice we can easily exclude a gonorrhea by having the patient urinate in two glasses.

In the majority of cases of balanitis gangrenosa there occurs a marked edema of the subcutaneous tissue of the penis which extends to the root and causes a marked phimosis. If the ulcer is situated on the inner surface of the foreskin it shows externally as a dark, bluish-red area within the surrounding bright red inflammatory tissue. The congestion and abnormal pressure, due to the edema, favor in a marked degree the progress of the disease.

Soon the foreskin over the ulcer becomes black and a complete necrosis of the part occurs. If the ulcer is situated on the glans, in a short time it may produce complete destruction of the same or may even cause an extremely rapid gangrene of the organ which may extend even to the root of the penis, as may be seen by the third case reported in this paper.

The ulcers in these cases are deep, the edges sharp and perpendicular, the base grayish-green or brownish; or it may show hemorrhagic areas or be changed into a black necrotic mass.

The discharge at this time is more offensive than in the erosive type; it has a grayish-yellow or grayish-brown color and at times it may be slightly hemorrhagic, but always with the same characteristic odor. The inguinal glands are enlarged; there is a mild grade of sepsis present. General malaise is marked. There may be vomiting and the temperature may reach 104. The tenderness of the part is extreme.

DIAGNOSIS

This disease is not so uncommon as one might suspect; in fact we believe that it is very common and is usually mistaken for chancroidal infection. The period of incubation may be the same in the two conditions; but with the characteristic thin yellowish white offensive discharge, in which one finds a vibrio-form organism and a spirochete, the diagnosis should not be difficult.

The ulcers of the two forms of infection may simulate each other very closely. In this form of balanitis when the infection is at all severe there is marked phimosis and considerably more inflammatory reaction. The enlarged inguinal glands are painless, while with a very insignificant chancroidal sore a suppurating bubo is often present.

Chancroidal ulcers are as a rule multiple, but they do not spread with as great rapidity as do the ulcerative forms of balanitis. Whereas the ulcers in both diseases have a clean-cut punched-out appearance, there is greater tendency to undermine the wall in chancroidal infection.

In chancroidal infection we find the Ducrey-Unna bacillus and do not find the vibrio or the spirochete.

On account of the indolent adenopathy that accompanies balanitis erosiva, it must be differentiated from syphilis. In syphilis the period of incubation is longer, although the two infections may occur simultaneously, as reported in one of Scherber's cases. When such a condition exists we may be compelled to defer our diagnosis of syphilis until the period of incubation for syphilis has elapsed; or in case of a mixed lesion the *Spirochæta pallida* may be easily demonstrated by the dark ground illuminator and is so characteristic as to be easily differentiated from the spirochete of balanitis.

Herpes preputialis always occurs as groups of small insignificant vesicles in which local reaction is mild or entirely absent. This condition simulates somewhat the mild form of balanitis erosiva, but in herpes one fails to find the organisms characteristic of balanitis.

TREATMENT

As a prophylactic measure the practice of circumcision should be encouraged; it is absolutely impossible for balanitis to exist in an individual who has been circumcised.

In many cases in which the condition is mild and the foreskin can easily be retracted all that is necessary is a thorough cleansing, but in the mild ulcerative forms in which there is the slightest evidence of phimosis a dorsal incision should be performed. As the organism of balanitis is anaerobic, this incision serves a twofold purpose, that is, of admitting air and exposing the diseased parts for treatment.

Previously we were in the habit of burning all these sloughing ulcers in this disease, but such treatment subjects the patient to needless punishment. As we have said above, the organisms of the disease are anaerobic, and as hydrogen peroxid liberates oxygen when in contact with organic matter, it acts as a specific for this form of infection.

We use the ordinary 2 per cent. solution, but in severe cases of gangrenous balanitis, 25 per cent. was painted on the parts.

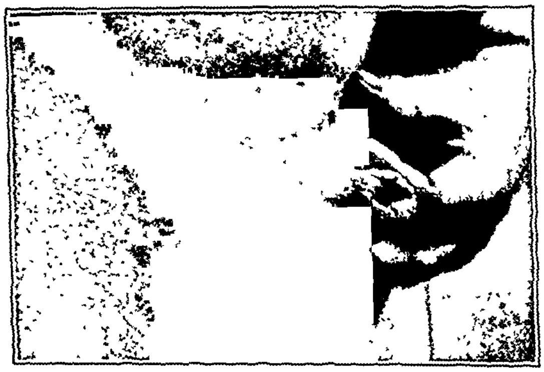
REPORT OF CASES

CASE 1.—*History.*—The patient, M. M. W., aged 40, married, denied all previous venereal history. After four days' incubation the patient noticed itching and burning around the glans penis. There were no constitutional symptoms. During the first week this continued as a mild balanitis. The patient was able to retract the foreskin. Treatment was neglected. At the end of the first week conditions suddenly became worse; the foreskin began to swell and the patient was unable to retract it. At this time he presented himself for examination.

Examination.—The general muscular development was good; there were no scars or evidence of previous venereal disease. The penis was swollen and edematous; the edema extended about half way up the shaft of the penis, giving it a pear shape. The skin over the glans portion was red and slightly injected. There was complete phimosis. Exuding from the opening was thin, yellowish-white pus, with a penetrating odor, in which was found a vibrio and a spirochete. There was constant burning pain which was increased on the slightest pressure. There was no urinary pain. The dorsal lymph cord was easily palpable; the inguinal glands were slightly enlarged but not tender. There was no fever.

Treatment.—With a small hand syringe 2 per cent. hydrogen peroxid was injected every hour into the preputial sack. By the second day the foreskin could be retracted, showing numerous small ulcers with sloughing bases with sharp borders, involving the sulcus and the covered portion of the glans.

These healed rapidly under the above treatment.



Balanitis erosiva seu gangrenosa, erosive type.

CASE 2.—*History.*—The patient, M. W. M., aged 26, Irish, denied syphilis; had had a supposed chancroidal infection two years previously. Two weeks before presenting himself, the patient had intercourse. After three or four days there was a little itching beneath the prepuce. At the end of *six days he* presented himself for examination.

Examination.—The temperature and pulse were normal. The *general nutrition was good,* and there were no signs of latent syphilis. There was a large indurated swelling of the penis. From the preputial orifice exuded a thin, yellowish-white, stinking discharge. This was examined for gonococci but none was present. There was phimosis, but not complete. With dilatation, the little finger was gently passed between the foreskin and the glans. The whole covered portion of the glans and the inner leaf of the foreskin was covered with small ulcers, having necrotic, sloughing bases. Those on the inner leaf extended to the border of the preputial fold; by gently pulling back the foreskin the whole could be plainly seen. *The dorsal lymph cord could be plainly felt* and the inguinal glands were enlarged but not tender. There were no constitutional symptoms.

Treatment.—The patient was given a wash of hydrogen peroxid, full strength. As he did not return to the clinic, we presume that his condition was satisfactory.

CASE 3.—*History.*—The patient, A. G. G., aged 43, American, denies all previous venereal history. He had had intercourse nine days *previous*; at this time, the patient said the prostitute lubricated her labia with saliva. The following day the glans portion began to swell; there were chilly sensations, no nausea or vomiting. Previous to this time the patient's glans penis was exposed between the preputial fold and the foreskin could be retracted. On account of the rapid phimosis that developed this could not be accomplished later. The local symptoms increased rapidly; by the third day gangrene had set in.

Examination.—When the patient presented himself at the clinic he was well nourished; muscular development good. There was slight septic intoxication. The entire preputial covering for a distance of three inches was one black, necrotic mass. By gentle manipulation the necrotic mass could be drawn away and deep sloughing ulcers, with sharp borders, could be seen extending into the penis above the glans. There was considerable thin, slimy pus, with an odor of necrotic tissue present. Here we were able to find the organism in large numbers. The remaining portion of the penis was dark red and infiltrated the edema extending to the root; the inguinal glands were enlarged. The patient's temperature was 102; malaise was marked.

Treatment.—The patient was sent to the county hospital. Here the necrotic foreskin was cut away, and just above the glans portion, at the site of the inner preputial fold, could be seen two deep ulcers. The glans portion was necrotic. In forty-eight hours the entire glans portion, together with about one and a half inches of the shaft of the penis, sloughed off, leaving a short stump. The patient was treated with irrigations of potassium permanganate three times a day, but the organisms had already invaded the deeper layers and gangrene was unavoidable.

CONCLUSIONS

1. We agree with Scherber and Müller that there is a characteristic clinical picture or form of erosive gangrenous balanitis, which under *favorable conditions* may cause deep and widespread gangrene, and which is of sufficient importance as to be called a fourth venereal disease.
2. In the erosive and gangrenous types there is regularly found a micro-organism (vibrio), which we consider the cause of the disease. In addition to this organism there is constantly present a Gram-negative spirochete.
3. On account of the rapid development of phimosis with a tendency to produce gangrene, it is imperative that a diagnosis should be made at once.
4. As we have a specific in hydrogen peroxid, its early use will prevent extensive destruction.
5. Whether these organisms are identical with those found in similar processes in the mouth and pharynx is still a question.

103 Randolph Street.

CERVICAL DILATATION

A SIMPLE (AND ORIGINAL?) METHOD WITHOUT LOCAL OR GENERAL ANESTHESIA *

CURRAN POPE, M.D.
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Dilatation of the cervical canal of the uterus does not yet stand on a thoroughly scientific basis: nor is its mode of action in some cases clear. Probably a mechanical or neuromechanical hypothesis would come nearer answering in most instances, than any other explanation. We all know that its results have not by any means been uniform; sometimes they have been good, oftentimes poor and in other instances absolute failures. Considerable observation has led me to believe that in many cases failure may be attributed to the fact that the dilatation or the dilatation and subsequent curettage was surgical, with unavoidable surgical traumata, that the operative work was not considered preparatory but was allowed to stand alone as a curative agent without that subsequent treatment for lesions that lay within the pelvis itself, or for those general or nervous disorders that are so often associated with the local conditions that have demanded the intervention of this method.

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* Read before the Louisville Society of Medicine.

In these days of aseptic surgery the use of laminaria and tupelo tents has been practically abandoned, because of the likelihood of septic infection, one of, if not, the greatest danger attending dilatation. Many uteri are already infected, and anything that bruises, lacerates or produces pressure, that interferes with the circulation, offers a well-fertilized field of devitalized tissue for microbic action.

Surgical methods to-day occupy the central portion of the stage when it comes to dilating the uterine neck. Few stop to consider or realize the enormous psychic influence of preparation and fear of operation that even the simplest surgical procedure demands. Among the most disagreeable features are the anesthetic and its subsequent effects. Most laymen object to an anesthetic and in fact consider this the greatest handicap to operative procedure, really fearing the knife less than anesthesia.

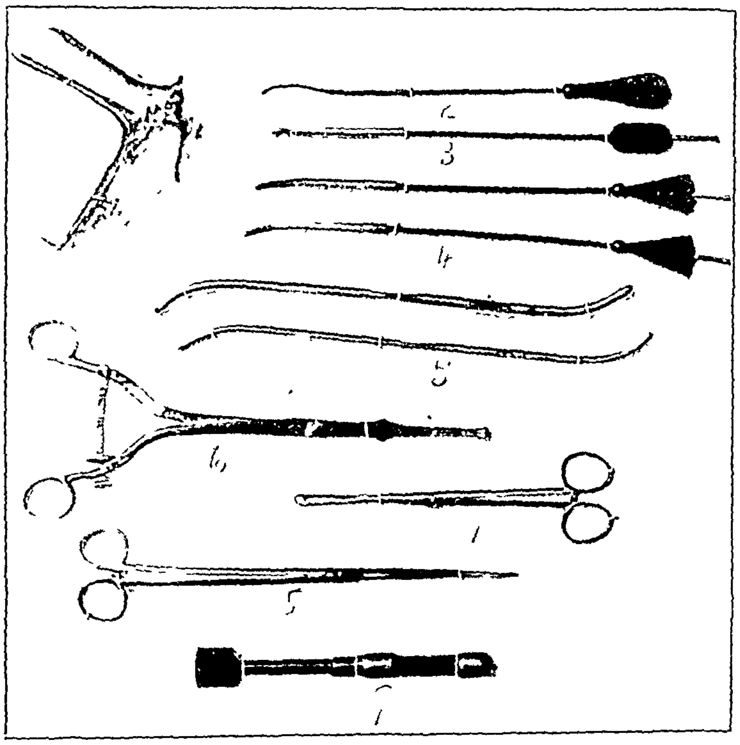

Illustration of instruments. 1. Bivalve speculum, interior insulated. 2. Massey's flexible electrode. 3. Author's straight intrauterine electrode. 4. Author's curved intrauterine electrode; note steel cap for holding zinc of electrode. 5. Author's uterine sounds with perforations for attachment of cord. 6. Dilator; note small holes near screw on handle for attachment of bifurcated cord. 7. Tenaculum forceps. 8. Dressing forceps. 9. Bipolar vaginal electrode.

Surgical dilatation of the cervix uteri requires removal of the patient to a hospital and preparation for at least one or two days before the operation, with a minimum of from two to fourteen days of subsequent confinement to the hospital. This latter is, however, not an unmixed evil, for many of these patients are benefited by the partial rest treatment following the operation

CURRENTS AND THEIR ACTION

In order to appreciate the modus operandi of the method I wish to present, it is necessary to digress somewhat from the main proposition and consider properties of electrical currents and their polar re-action. Electricity has been employed for years in the treatment of various obstructive conditions of human canals, notably those of the uterus and urethra, when these for any reason were closed, distorted or obstructed and I feel sure that it would be more generally used were its varied actions clearly understood by the profession at large.

The currents I employ in dilating the cervical canal of the uterus are the galvanic and faradic; they must be employed with the care, in the manner and in the sequence described in order to secure the results, described in this communication.

Only a passing word can be said of apparatus: the best is none too good. With his electrical apparatus the operator must be as familiar and conversant as the surgeon with his instruments; he must possess a correct technic and be able to so modify and change minor details so as to overcome special or peculiar conditions in any individual case.

Among its many and varied properties, the galvanic current possesses the power to stimulate molecular and osmotic processes, producing an electrolytic action on living tissues, accompanied by a transference of ions. It may be stated here that an ion is an atom carrying an electrical charge. In the method I employ the cathode or negative pole is employed and no other; the positive never. When the galvanic current is turned on slowly and the "flow" between the poles is established a profound hyperemia at the negative pole results, with increased fluidity and a local accumulation and excess of the electro-positively charged ions of hydrogen, sodium, potassium, ammonium and calcium with a resultant formation of their alkaline caustics, the hydrates of hydrogen, sodium, etc. At the same time the current exercises an electro-antiseptic-anesthetic action peculiar to both poles.

With a large pad on the abdomen attached to the anode or positive pole, and with the cathode or negative pole in the uterus, what takes place? The tissues are flooded with blood, rendered more fluid and rapidly softened by the diffusive absorbtion or accumulation of the alkaline caustics above referred to, this rendering them less resistant and much more easily dilatable. At the same time, those nutritional effects the result of the current *per se,* and its accompanying hyperemia becomes manifest. So much for the galvanic current.

A high tension faradic current, from a secondary coil of exceedingly fine wire, of great length is used. A coil of this character is distinctly sedative, pain-relieving and an obtunder of sensibility. A faradic outfit to possess these qualities must at least have a coil of No. 36 wire (or smaller) of many turns; the ribbon vibrator must "sing" smoothly, evenly and with the least possible variation and be activated by at least four cells or from the "main" current.

METHOD OF APPLICATION

Immediately succeeding a careful local examination and diagnosis, the nurse is instructed to place a large-sized pad on the abdomen attached to the positive pole. I then introduce through a bivalve speculum the small flexible electrode designed by Massey to determine the obstruction, as well as the direction of the canal. This is easily accomplished, as a rule, when five to ten milliamperes of negative current is allowed to flow. In passing it may be noted that the introduction of the flexible electrode or of my uterine sounds and the dilator is oftentimes much less disagreeable than the introduction of an ordinary uterine sound, because of the resolving influence of negative electrolysis, under which obstructions soften and break down. Having determined that it is necessary to dilate the cervix, the patient is told nothing, but is given a laxative to be taken at night, followed by a brisk saline next morning on arising, such as citrate of magnesia. If it is deemed wise or as an additional precautionary measure an enema may be taken. Prior to leaving home, or in sanatorium practice immediately preceding the dilatation, the patient is given a vaginal douche of hot normal saline. All the instruments are thoroughly and carefully sterilized, and the hands of the operator are cleaned and rendered reasonably sterile.

The nurse *places the patient in the dorsal position* on the table with a pad on the abdomen; if the position of the uterus is normal or antedisplaced (that is to say ante-version, flexion or lateral displacement) and on the back if retrodisplaced. The cervix is exposed by the ordinary bivalve speculum or my electrical speculum. I select an electrode properly insulated or an electro-dilating sound to suit the supposed curve of the canal and introduce it gently into the canal under the influence of the negative pole of the galvanic current. The electrode is then withdrawn and the small dilator gently insinuated into the cervical canal as far as it will conveniently go.

No force should be used and the dilator should never be pushed through the canal. If necessary, the cervix can be steadied by means of tenaculum forceps, though this is not, as a rule, necessary.

The nurse is then instructed to place the De Watteville or the Pope Current Selector on the combined galvanic and high tension faradic current buttons. The switch is then thrown so that the negative pole of both currents travel along the cord which is at this time inserted into the two sockets on the handle of the dilator.

The galvanic current is first employed with an average dosage of ten millimeters. The dilator is gently passed through the canal until its tip just clears the internal os and is there allowed to remain approximately a minute or two, is then withdrawn a little and is then reinserted to permit free exit of any gas generated. While the galvanic current is flowing and with the dilator within the cervical canal, the high tension faradic current is turned on to the point of comfortable tolerance. Then gradual, slow and intermittent dilatation is practiced, the dilator being turned so as to bring every part of the canal and internal os in contact with the lips of the instrument. It will be noted that the dosage of the galvanic current is very small, thus avoiding cauterization at any point.

At the end of from five to ten minutes, first the faradic current and then the galvanic is turned off gradually and slowly: both must be controlled by a reliable rheostat. The dilator is then withdrawn. With its withdrawal there is usually a fair amount of frothy discharge slightly tinged with blood, the result either of the hyperemia or rupture of small blood vessels: this may be disregarded. The cervix is wiped clean with aseptic cotton, and, if it be deemed *necessary* the cervical canal may be likewise cleaned: this is rarely ever needed. While it is best for the patient to remain quiet for from half to one hour, still it is not necessary. I have patients to immediately step down from the table; return to their homes on foot or by a street car, resume their household duties at once and in fact remain ignorant of the work accomplished.

The most frequent complaint that I have had has been of a sense of weight or heaviness. This is due to the action of the galvanic current itself and not to the dilatation, and is often present in cases in which dilatation has not been performed. If this weight (or tenderness, if we so care to term it) is present after the removal of the dilator, remove the speculum and introduce a bipolar vaginal electrode, placing the anterior tip of the electrode well under the cervix or deep in the cul-de-sac; turn on the high tension faradic current slowly, keeping it at the highest tolerance for from seven to ten minutes. This usually gives immediate relief.

Following such a dilatation there is usually a free *mucoid discharge, sometimes mucosanguinous for several* hours or possibly a day, but this quickly disappears, and no further so-called surgical precautions are demanded, than to keep the bowels open and use a hot normal saline douche the next morning. I usually limit meat eating both before and after the dilatation.

The advantages of the method above enumerated are numerous. The psychic fear of operation, the dread of anesthesia and the confinement to bed in a hospital are avoided. It is rapid and so far as my experience is concerned to all practical purposes a painless operation. There is less likelihood of necessity for subsequent dilatation, although dilatation by this method if need be can be repeated many times. Scars resulting from ordinary or surgical traumata are hard and contractile, while the scar resulting from negative, galvano-faradic dilatation is soft and distensible; a characteristic of galvanic negative polar scars anywhere in the body.

CASES IN WHICH THIS METHOD IS INDICATED

I am satisfied that this method is not available in cases in which there are retained secundines and marked acute infection. These are eminently surgical cases and demand thorough curettage. I consider that this method meets all the requirements of those chronic cases which obstruction must be overcome and drainage secured, sometimes this being all that is necessary.

To overcome obstructions or stenosis in the canal associated with flexions and displacements, whether the stenosis be primary and accompanied by the so-called pin-hole os, or cicatricial following operation, pressure, sloughs, labor, the applications of acids, caustics of ulcerative changes, this method will be found to answer the purpose, by securing free drainage through the cervical canal for the retained uterine secretions or menstrual blood. It will be found of use in dysmenorrhea due to oöphoritis, salpingitis (without suppuration) and in those cases in which the organs seem normal but great pain is present at the menstrual periods, as well as in those cases in which the pain begins before the flow for a few hours and is sharp and intense in character. Patients with metritis, cervicitis, and endometritis, in whom we have to deal with hypertrophied and swollen mucosa, in whom the uterus is flabby and its walls atonic, or in which hard and hyperplastic, and in whom the obstruction has dammed up the secretions, are particularly benefited.

In the imperfectly developed or infantile uterus it is an ideal method for opening the canal preparatory to intrauterine applications of coarse wire faradic electricity for muscular development, as well as in those cases of sterility in which a mechanical hindrance or a thickened mucosa prevents *conception.*

It is valuable in uterine hemorrhage as a preliminary to obtaining scrapings or for preparing the canal and uterine body for heavy currents of positive galvanization. In preparing those persistent cases of amenorrhea, with small canals, it is almost a certain panacea, when followed by negative galvanization.

In inflammations resulting from gonorrheal infection it not only secures free drainage but tends to wash out in the hypersecretion that follows its application, the specific germ. If the dilatation is followed the next day by the application of positive copper or zinc-mercury electrolysis, those who have never employed the method will be astonished at the prompt results obtained.

In those cases of hypersecretion or of congested uterus, found frequently in fat women or in the hypersecretion of subinvolution, anemia and chlorosis, it is a preparatory method of value.

I have had access to and searched diligently through the literature of the subject at my disposal and so far have been unable to find a description of this method and for that reason I have stated it to be original.

PENMANSHIP STUTTERING*

E. W. SCRIPTURE, Ph.D., M.D.
Visiting Physician for Speech Defects to Randall's Island
NEW YORK CITY

The case to be reported shows a condition that I believe has never before been observed or described.

History.—Mr. A., aged 38, had written shorthand exclusively from 14 to 18 years of age, and then shorthand and typewriting with very little longhand until 22. After three years illness he took up shorthand again for one year. He then obtained employment as a teller in a bank where he had to fill out names on deposit slips. He was told that his writing was bad and was urged to improve it. He tried to do so by taking courses in penmanship, by imitating the penmanship of other persons, etc. This resulted in the ability to write well when he could do so slowly and coolly but in a worse result whenever he did his work at the bank. On entering the bank in the morning he is seized with a nervous fear and a dread of writing poorly. The first few slips will be written fairly well but the anxiety soon brings on a condition in which the writing grows worse with each word. The specimens reproduced in Figure 1 show that, even in my office where he is not particularly worried, the writing grows steadily more cramped and tremulous as he approaches the end of a word. He explained that he had suffered so much on account of his writing—he had been passed over in promotions and had even thought of changing his occupation—that a nervous fear seized him the moment he took up a pen. Before beginning to write he would make a number of nervous strokes with the pen without touching the paper. There was no trouble whatever in his speech.

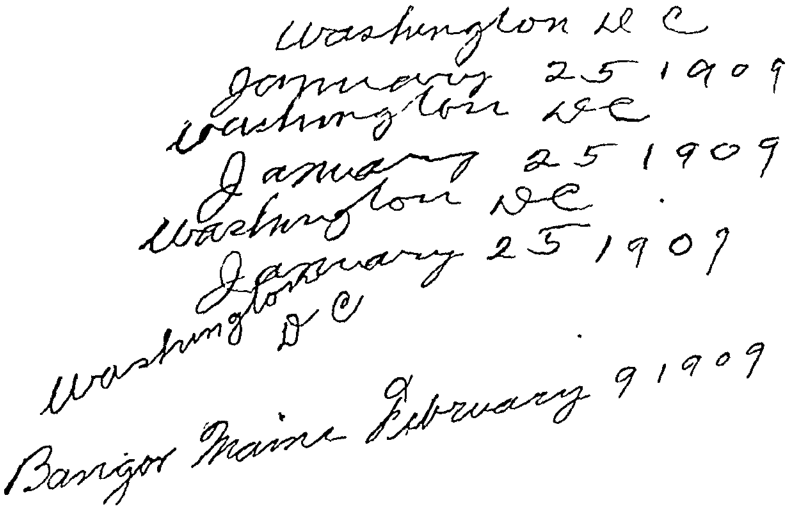

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Fig. 1.—Specimens of the writing of the patient.

The patient was sent to me by Dr. W. S. Thomas of New York City with the suggestion that it might be a case of stuttering in penmanship and that the methods used for correcting the speech stuttering might perhaps be applicable. The diagnosis was undoubtedly correct. There were cramps of the muscles of action resulting from a compulsive nervous fear that was aroused whenever the action was contemplated.

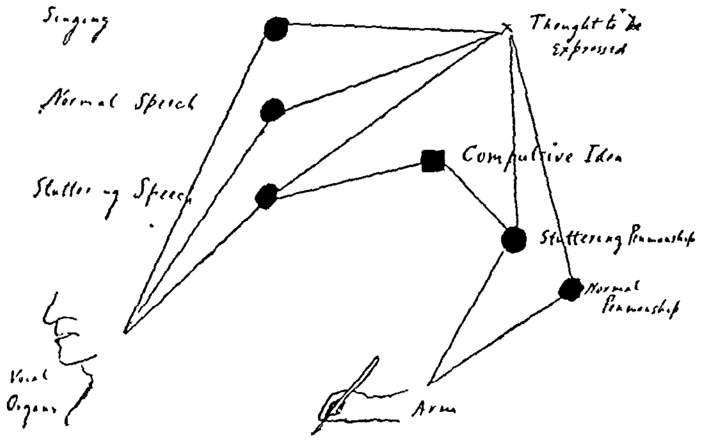

Fig. 2.—Scheme to show the nerve action in stuttering.

The therapy was based on the theory of stuttering that had substantiated itself for speech. The stutterer speaks in a peculiar voice that betrays him to the practiced ear even when he does not stutter. This voice is connected with his compulsive idea, namely, *with the* thought that he is going to stutter (Fig. 2). He does not stutter when he sings because the compulsive idea is not connected with singing; and he does not stutter when he speaks a dialect, for the same reason. To cure the trouble *he is taught to use* a form of speech that is utterly new to him, namely. the speech of normal persons. As soon as he understands how normal persons inflect their voices with rising and falling melody, and

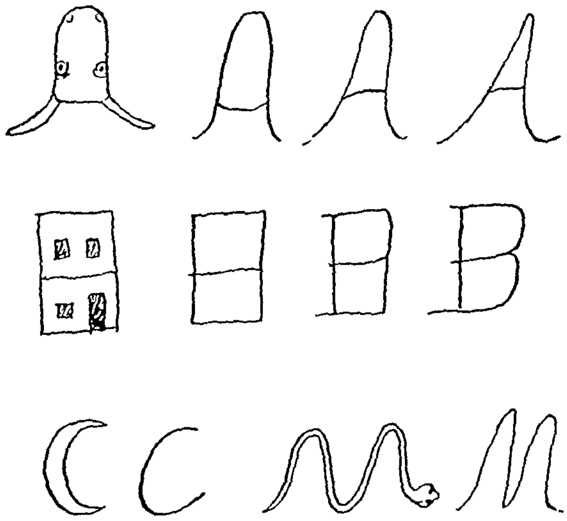

Fig. 3.—Specimens of alphabet devised for this patient.

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* Read before the New York County Medical Society, Mar. 22, 1909.

can imitate them, he can speak without stuttering. His voice is changed from a harsh cramped one to a melodious easy one.

Applying this principle to the penmanship stutterer, I sought a method of imparting thought by written characters that would involve graceful and easy movements of the right arm and hand. This method had to be entirely different from penmanship and yet capable of gradual change to it. Chinese writing brushes were bought. These made it possible to use free and graceful movements of the arm. A new alphabet had to be devised in order to have no connection with the pen alphabet.

For the letter A it was explained that the Egyptians had used an inverted bullock's head; for B they had used an outline of a two-story house; C was the symbol of the crescent moon, and so on (Fig. 3). *All the letters were thus regarded as hieroglyphs and* felt to be new things. In this way a new means of communicating thought was built up which was quite disconnected from the compulsive fear. The patient was trained to write the letters with the brush until he could make them gracefully and quickly. Then he passed to words, using specially the names that he had to write in his business.

When he could write gracefully with the brush he passed to a pen and drew the letters in a similar fashion. Gradually the speed was increased and greater fluency obtained.

It was constantly impressed on the patient that he was writing in an entirely new way. He learned to know that he could write perfectly and fluently in this way. Any new form of writing might have been used, but this particular form was chosen so that the final result would not differ from the usual style of penmanship.

It is essential that the stuttering patient shall always feel that he is writing or speaking in a new way; so long as he has this feeling he will be free from the compulsive idea. The mere supposition that he is speaking in a new way is often sufficient to instantly stop stuttering in speech. One patient could not dictate to his secretary. To avoid discovery by his superiors he would write his letters in long hand and pass them to be typewritten. I told him to sing various letters to me. He could do so perfectly without hesitation. But he was unable to distinguish one note from another, and instead of singing —as he supposed—he really only spoke the words in a kind of monotone. I sent him back to his secretary with the instruction to always sing his correspondence, knowing that he really would not sing them but that so long as he believed himself to be doing so he would have no trouble.

This principle of training a patient to use an entirely new set of thoughts and movements in accomplishing an act that has become disturbed through nervous troubles may be applicable in still other diseases possibly in the various phobias. It is certainly closely related to the Fraenkel treatment for locomotor ataxia.

87 Madison Avenue.

Port Wine Stains.—In reply to a remark of Sir Frederick Treves, that radium can cure "port wine" stains and the query as to what other available means surgeons have for the same object, Dr. John Donald of Glasgow (*Brit. Med. Jour.*, April 3, 1909) says that for five years he has been using the *x*-rays for that purpose with remarkably good results.

THE COUNTY SOCIETY

L. ROCK SLEYSTER, M.D.
APPLETON, WIS.

The success of the state and national organizations must have as its logical basis a healthy condition of its constituent parts, the county medical societies. They are the units, and all permanent advancement and improvement is directly dependent on their condition. Increase the interest attendance and enthusiasm of a single county society, and a notch has been gained for the whole. The enthusiasm is mildly contagious. The glow of a live healthy society can not but have a beneficial effect and act as a stimulus on its neighbors. Too little attention has been given to the county society, the difficulties against which it must struggle and the ways and means of solving and meeting them successfully. This is a subject of vital importance and deserving of a most thoughtful consideration.

Now for the county society, its joys, its sorrows, and its needs. Let us study it for a moment under the low power before we try the oil immersion. We find a few counties containing a large or medium-sized city. The county society here practically becomes a city society. Conditions should be ideal. Members can easily reach the place of meeting without any great sacrifice of time or comfort. The advantages of all that is modern, the hospital, the clinic, the laboratory, the keen competition of bright minds—all form an ideal environment for active scientific work, and there is no excuse for other than a prosperous organization. To those in charge I recommend the use of a serum for the toxins of the diplococci of jealousy and the bacillus of indifference. I believe this treatment will cover the majority of their ills; and we will devote our study to those societies in the large majority whose troubles are real, whose members we find scattered over a large territory, often living ten to thirty miles from the place of meeting. With them, to attend a meeting means a sacrifice of time and comfort—often a long drive over bad roads in cold or rainy weather. Given a county with fifteen to thirty physicians and sometimes more—often no more than three in any one town—and the problem of holding successful meetings becomes one which demands no small amount of study. It is to this study that this paper, in a modest way, is devoted and aims to arouse your interest. Now for the high power!

THE REQUISITES FOR A SUCCESSFUL MEETING

First, what is a successful meeting of a county medical society? I do not wish to belittle the value of the papers read, or the study for which their preparation and discussion is directly responsible. Far more important, however, than the actual program rendered is the securing of a good attendance. I hold that a well-attended meeting of a county society has been a success if the members have done no more than to eat a good dinner and play "pedro." They have met in a friendly way, have learned that after all they are all "good fellows," have laughed over and settled little differences, and have gone home with a kindlier feeling toward the neighbor who occasionally "gets into my territory," and a mental resolution to attend the meetings more faithfully in the future. As to the article on "Diphtheria" read by Dr. White of the east end of the county, or the article on "Surgery of the Gall Bladder" read by Dr. Black of the county seat, they were good, showed careful preparation and served the purpose of a healthy review. They awakened new interest in the subjects, but, the members have an abundance of literature on this subject at home, probably the same from which Drs. White and Black culled their information, and these papers will be forgotten long before the pleasant remembrance of a competitor's hearty handshake, or the contagious laugh of Dr. X., who has been mentally despised all these years on hearsay evidence. That little misunderstanding with Dr. Y. about the Smith case has been explained. Y. was not wrong after all; and Dr. Z. is not making calls to Browntown for three dollars as has been persistently rumored. The fraternal and brotherly feeling has been raised from zero to a pleasant summer heat; "for its always fair weather when good fellows get together." Get your men together and you need not worry about the rest. It is the problem of getting attendance that needs more study just now than any other feature of organization work, and I have failed to find a single column devoted to this subject in any of the organization publications. The whole success of the county medical society—its very life and usefulness—depends on a good attendance, and the attendance depends almost as directly on the most important man in the whole organization—the county secretary.

THE COUNTY SECRETARY

So here's to the county secretary! Your work as such means a sacrifice of time you have planned for something else, and a constant study of local conditions. Often in your efforts to smooth a rough path, to substitute harmony for friction, it will mean casting your pride aside. Your efforts may be appreciated and they may not,—but at the end of the year, when your report is ready for the state secretary, there is a world of satisfaction in knowing that your society has shown a gain, that it compares well with its neighbors, that there has been an awakening of interest and fraternal feeling and that your work has shown results. This is from one who knows.

Regarding the choice of a county secretary: he need not be your brainy man, your most successful man or your best speaker. These are qualities of lesser importance. Pick him rather for his interest in the work and his record of attendance. He should be a popular man, well liked and respected, and in whom confidence is felt, a man with both energy and tact. With these qualities he will be a success. The greatest difficulty which his duties present will be in the matter of securing good attendance. It is far easier to secure a good membership roll than to get your men out regularly to the meetings. The average physician is forgetful and a bit careless about these matters and needs a considerable amount of "stirring up" and numerous reminders. This work naturally falls on the secretary.

The practice of the majority of societies in notifying members is to send a printed form post-card with blanks left for the date and place of meeting. I have found this alone a very unsatisfactory method. It does not bring results. The card is recognized at a glance, creates no lasting impression and in the press of work is soon forgotten. More than one notice should be sent and when this is done the post-card may be used as the initial. It is better to send this about a week or ten days before the meeting. A few days later it is my custom to send a short personal letter urging the member's attendance, giving an outline of the program and business of the meeting, and reminding the member of clinical material, etc. In addition to this, let him receive a postal the day before the meeting. This need only be a line ("Lest you forget" or "Last call") with the secretary's signature. Of course this means work, but the results are so surprisingly good that one feels well repaid. When these measures have failed to get a man's attendance for two successive meetings, it is well to telephone him the night before the third. The secretary who can make each member feel that his presence is sincerely desired and that his absence will be noted and be a source of disappointment, has discovered the magic key that unlocks the door of indifference and allows the better growth and development of a fraternal conscience.

To obtain the best results there should exist between the secretary and members a cordial relationship devoid of all formality. In every way possible a return to the frank open good fellowship of college days should be fostered and encouraged. An occasional informal letter to the members is of value. Not for its literary value or because I regard it as a model, but rather to illustrate what I mean I append a letter sent to our members the first of the year.

My Dear ————:

You are hereby appointed a "Royal High Barker" for the county medical society for 1909. Your duties are: to attend every meeting, bring all of your agreeable neighbors and those you want made agreeable—even if force is necessary. You are also to bark for the good of the society, throughout the year. Personally, I am offering a golden crown and a halo to every man who does not miss a meeting in 1909. Now's your chance, if ever! Cordially yours,

————————

And every man is "barking" as evidenced by a 75 per cent. attendance at a night meeting held soon after. This meeting was held at a village where but one member lived, the remainder coming by team or train distances ranging from eight to twenty-two miles, and returning the same night. And the month was March!

THE PROGRAM.

A few words about the program. It should be made up at the beginning of the year, subjects assigned, places of meeting named and dates decided. Let it be printed, even though your society numbers no more than ten members. Arrange your meetings at the more central points and choose your dates carefully. Let me illustrate, and remember I have in mind the country society. Hold a morning meeting at your county seat during the county fair or races or other carnival events, and make a holiday of the afternoon. You will be surprised at the attendance. Hold a picnic or outing meeting at a neighboring lake in June or July. Make this an all-day affair. Bring the wives and don't forget the fishing tackle. This "outing meeting" is "the event" of the year in our society. It has never been the means of developing a specific for anterior poliomyelitis, but it is mighty good treatment for the friction and discord so general among medical neighbors. At one or two meetings a year try to provide an outside speaker, a man doing special work, or even a layman on a semi-lay subject. When possible, end each meeting with a good dinner or lunch. It is simply wonderful the way a kindly feeling and a good fellowship will develop around a dinner-table, and the differences and misunderstandings of years will roll away in the fragrant smoke of an after-dinner cigar.

To secure a good attendance, it is important that the program be of interest to the general practitioner and of practical value. Do not overlook the common everyday subjects. They, as a rule, will awaken the greatest interest in the general practitioner, will prove more effectual in securing his attendance, and will bring about a more general discussion, with a host of valuable suggestions and ideas learned in the hard school of experience. Let me outline, as an example, what I would consider an ideal year of practical work for the average county society holding quarterly meetings, a program to appeal to the general worker and to draw his attendance.

First Meeting.—Subject, "Hernia."

Two papers, one operative, one non-operative treatment of the common hernias. (A near-by surgeon may be secured to read the first.)

Second Meeting.—Subject, "Fractures."

Two papers, one on fractures of the upper and one on the lower extremity. (General discussion, each member describing and illustrating any particular or original method or appliance with which he has been successful.)

Third Meeting.—Subject, "How We Can Increase Our Office Practice." (Outing Meeting.)

First Paper: "The General Practitioner as a Specialist." What can he do successfully that he now refers to the specialist. (What eye and ear, surgical, mental patients, etc., can be treated successfully at home.)

Second Paper: "Mechanical Therapeutics, Gynecologic and Genitourinary Treatments."

Third Paper: "The Dispensing of Medicines."

Fourth Paper: "The Physician as a Busines Man." Keeping of books and records, investments, collections, etc.

Fourth Meeting.—Subject, "Pediatrics."

Two papers, one on the examination of sick children, one on pediatric therapeutics.

This was found to be a most successful year's program. It covers a wide field; soars over no man's head; is very practical; and, most important, is of vital interest to the private soldier, "the man behind the gun;" and it brings out a wealth of discussion and helpful practical ideas learned in the school of actual practice.

CONCLUDING SUGGESTIONS

In closing, just a few more words about the county secretary, for more depends on him than on any other: I believe his attendance at the state meetings to be as important as the delegate's, for he knows best the pulse of his society. Could the number in the house of delegates be doubled, he would be a most valuable addition. Of still more importance, however, would be a yearly meeting of the county secretaries presided over by the state secretary. This would provide means for an exchange of ideas, a chance to "talk things over," to "get in touch," and would be of inestimable value to themselves and to the organization as a whole. Where this has been tried it has been enthusiastically endorsed, and it should be more generally adopted.

One more suggestion: It is that the official journals of the various state and national organizations give one or two pages each issue to the county secretary, and let it be edited by a man in the field. Let this space be turned over to them and let it be a clearing-house of ideas open to any and all, to the man who has originated an appeal for membership or collections, has worked out a good program, is in doubt and has a question, or has a suggestion on any branch of society work. Progressive manufacturers have installed in their plants a "suggestion box." Into this all employés are invited to place written statements of any suggestions or ideas for improvement. They have found these ideas of the men actually doing the work of the utmost value. Let this journal page be a "suggestion box," and let every man engaged in the work be invited to contribute to it.

So here's to the man in the field, the man with the big hand and the big heart, the man who is bumping over country roads to do his part! His faithful attendance merits much, and one who knows him well, crowns him "the prince of good fellows."

A DISORDER DUE TO EXPOSURE TO INTENSE HEAT *

* Read before the Pittsburg Academy of Medicine, March 23, 1909.

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Dr. David L. Edsall, of Philadelphia, has recently described[1] a group of cases characterized clinically by violent muscular spasms and excessive irritability of the muscles. Dr. Edsall says:

> These patients presented none of the conditions ordinarily recognized as due to heat; there were, indeed, no symptoms of any moment, aside from the extremely striking muscular disturbance. The muscular spasms, however, were of a remarkable character, and in some of their details they appeared to be sufficient to distinguish the cases from other conditions of spasm that are recognized whatever their cause.
>
> One of the most striking features was a very conspicuous degree of fibrillary contraction, particularly in the muscles of the calf. This was of continuous occurrence, except during the frequent interruptions caused by the most marked of all symptoms, namely, severe tonic spasms.

Without going into further detail Dr. Edsall mentions, in this report, which he calls a preliminary one, the following points:

The spasms lasted from half a minute to a minute each time they occurred and were exceedingly painful.

They involved the muscles of the forearms and legs severely, but were also violent in the abdominal muscles.

The spasms occurred spontaneously with great frequency, but were at once excited, in the intervals of quiet, by any attempt at voluntary use of the muscles.

The spontaneous spasms were almost entirely over within twenty-four hours and no symptoms remained except slight exhaustion and some muscular soreness.

Sensation of all qualities (touch, temperature, etc.) was normal, as were the sphincters and pupils.

In summing up, Dr. Edsall says:

> This disorder appears to be, therefore, a condition that is likely to be met occasionally in the course of a general medical experience and one that occurs in a considerable number of occupations with sufficient frequency and severity to be of very distinct importance. I was able to make some studies of metabolism which includes observations of the urinary excretion of total nitrogen, ammonia, uric acid, chlorids, phosphates, sulphates, etc. The conditions of metabolism that I found were extremely striking; they have, as far as I know, no counterpart in any other condition and are very different from any that have been observed in somewhat similar states of spasm. At present I would mention that the conditions of metabolism, together with the clinical features, indicate that it is an individual disorder, and it seems extremely probable

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[1] The Journal A. M. A., Dec. 5, 1908, li, 1969.

that it is due to an acute degenerative process in the muscles.

During the past five or six years I have had opportunity to see a number of cases such as Dr. Edsall has described, and have always felt that such cases must surely be of a distinct type, for the most striking objective symptom did not seem, as far as I could see, to be connected with, or dependent on, any other pathologic condition.

At first the condition puzzled me, and, although it is a well-known and exceedingly common condition among certain classes of millmen, I was unable to find, in ordinary medical literature, any mention of the subject, or to find a description of any condition or disease that would satisfactorily cover the peculiar symptoms presented by this class of patients.

In speaking to some of my medical friends, I was further surprised to learn that they had either never seen a case or, if they had, did not recognize it as a distinct condition, and had never given it any special thought or attempted to classify it other than to use the common term, "mill cramps." This term, by the way, is one that millmen commonly apply to all cases of sudden painful seizures (whether associated with muscular spasms or not) occurring while they are at work.

Being unable to find any authentic description or explanation of the condition, I tried to investigate the matter, principally in order that I might develop, for my own satisfaction, a more rational line of treatment. My investigation, however, was greatly hindered by the very unfavorable circumstances under which I saw my patients.

It was absolutely necessary that they be removed, as soon as possible, from their unfavorable and often intolerable surroundings. I have never found it necessary to send these patients to the hospital where they could have been studied to a better advantage and, unfortunately, I was unable to follow up the cases after the patients had been taken home. Consequently my remarks are necessarily limited to what I have observed regarding cause, diagnosis and perhaps immediate treatment.

My first concern was, of course, to be sure that the most prominent and characteristic feature, "myospasm," was a condition and not a symptom. I found this comparatively easy, for, no matter how severe the spasms, how long they lasted, or how painful they were, the patient's mind always remained clear and the special senses not affected. Another point is that only the large voluntary muscles were affected, and still another point was the fact that there did not seem to be any constitutional disturbances whatever.

The differential diagnosis might, therefore, be summed up as follows: In all other conditions, such as strychnin poisoning, epilepsy, uremia, hysteria, etc., presenting muscular twitchings, contractions or spasms, such twitchings, contractions or spasms are, as a rule, in proportion to the amount of toxemia or morbid condition present. Now, if this toxemia or morbid condition (whatever its character) were present in sufficient amounts to cause the intense myospasms present in these cases, then surely it would be present in sufficient amounts to affect all the voluntary and at least some of the involuntary muscles, and to materially affect the mental, nervous or circulatory systems. That this condition differs from all other recognized conditions due to exposure to heat is shown by the fact that there is absolutely no thermal disturbance.

The next point was to determine the possible cause, and, in looking up this point, I found some very interesting and almost unbelievable facts.

It was first noted that in somewhat over 2,000 calls to attend men, either sick or injured, in and about mills and railroads, not one case of this character was found, unless the patients had been exposed to intense artificial heat. It was also noted that the season of the year had an effect only, perhaps, in so far as the humidity affected heat radiation, for, while most of my cases did occur in the hot summer months, I have notes of cases occurring in October, January, April and May.

This fact, naturally, led to the belief that exposure to intense heat was a factor. The question then came up as to just what degree of heat was necessary.

On investigation I found that all my cases, ten in number, occurred in men who had been working in temperatures ranging from 140 to 235 F. This statement, perhaps, needs some explanation, for, to one who is not acquainted with some conditions found in mills, it would, no doubt, seem almost impossible for men to work in a temperature above the boiling point.

Now, when a furnaceman lifts up the door of an ordinary steel heating furnace, he is exposed, for a greater or less period, to a mass heated to 2,800°, and when a furnaceman engaged in melting crucible steel lifts out a pot he is directly over a mass heated to 3,000°. One can imagine what the surrounding temperature of such places must be, especially when no provision has been made for the free circulation of air.

On the floor, or rather the roof, of a crucible steel-melting furnace it is hot enough at all times to broil a steak; and, remember, it is on this floor that the men have to do most of their work. The men working here wrap their feet and legs in two or three thicknesses of water-soaked cloth, and I have seen them after perhaps a half-minute's exposure come away with these water-soaked cloths dry and even burning. Needless to say that, in this special class of work, the men are actively engaged only about half an hour out of a possible two hours.

The manager of such a department is my authority for the statement that the surrounding temperature on his melting floor will, very often, in summer reach 235.

In going a little deeper into the cause, I found that these men, while exposed to this intense heat, were also obliged to use extraordinary muscular effort. In fact, they were obliged to lift, pull or push a load weighing from 50 to 350 pounds.

It was noted that the attacks came on after the men had been working for some time. Men on the day turn would be attacked toward the close of the morning's or afternoon's work, and the night-turn men about midnight. It was further noted that the attacks came on, not while the men were actively engaged in violent muscular effort, but shortly afterward. A man would be putting on his coat, or walking away from the furnace, or engaged in some other form of light muscular effort, when, usually without warning, the first spasm would seize him.

From these facts one would be inclined to think that overexertion was at least a factor in the causation, and inquiries as to a possible predisposing cause would seem to strengthen this view.

Most of the cases occurred in men who were hard drinkers, although there was absolutely no evidence to show that any one of them had been even slightly intoxicated when attacked. Some of them stated, without being able to give any definite symptoms, that they "had not been feeling just right." One patient, who does not use alcohol in any form and who, by the way, has had two attacks, stated that on both occasions his "stomach had been out of order for two or three days previous to the attacks." In fact, in all cases observed I found some more or less definite condition which led me to believe that the muscular tone of the individual was either not equal to or had been lowered to a point somewhat below that which he found necessary to meet the ordinary requirements of his particular line of work.

In this connection it might be as well to state that one attack seems to predispose to others. This is a common observation among millmen, and my observations bear it out.

That I was, perhaps, mistaken in my idea as to a certain susceptibility, or predisposition, and that my estimate of the temperature necessary to bring about the condition was entirely too high, is shown by the fact that Dr. Edsall reports a case of a man who was attacked while walking along the street on a hot summer day. This man's occupation, however, made it necessary for him to be constantly walking about the streets, and it is just possible that his muscular tone was greatly below par.

Like Dr. Edsall. I have never found any thermal change. The pulse is somewhat accelerated, but not more than one would expect in patients suffering intense pain.

Besides the intense muscular spasms, pain is the most marked characteristic feature. I make this statement because I have never seen agony such as these men, apparently, suffer.

The entire length of the acute, violent, spontaneous seizures, with the corresponding periods of quiescence, may be anywhere from one to four hours, when there is a gradual lessening in the severity and frequency of the spasmodic seizures. The patients may have fleeting spontaneous attacks for twenty-four hours but the tendency is for a more or less rapid recovery with some slight muscular soreness resulting. This observation, however, is based only on patients whom I have had under treatment during this period. How long these patients would suffer under the common lay treatment of vigorous massage and large doses of whiskey is rather hard to say.

I have never seen the muscles of the face, neck or back affected. The spincters remain unaffected and I have never had a case in which I thought that the involuntary muscles were involved. I have been informed, however, that some men have seen fatal cases and this fatality has been due, they say, to "spasm of the heart muscle."

As to the pathology, I was unable to form an opinion. One would imagine, after seeing these patients at the height of an attack, that surely there must be some striking pathologic condition present. The intense spasmodic and more or less constant muscular contraction, and the severe pain would certainly seem to go hand in hand with some marked changes in metabolism, but the comparatively rapid and complete recovery, with apparently no serious consequence, makes one think that whatever changes have taken place must be of a transitory character.

At first, I thought that there were some marked changes in the blood; a deoxidization or a degeneration of the red cells in the local superficial vessels. This idea was suggested by observing the behavior of the muscular system in patients who have been overcome by furnace gas; a phenomenon which is observed, I believe, only during the very beginning of the inhalation. One can hardly see, however, how this phenomenon could occur locally without affecting the general circulation. Dr. Edsall informs me that he found absolutely no change in the blood, and this, coming from such a careful observer, clears up, as far as I am concerned, any doubt as to this point.

Central motor disturbance was out of the question because of the local manifestations in rather widely separated groups of muscles, and because the spasms, in the groups, occurred, not simultaneously, but one after the other until all the affected parts were involved. This phenomenon occurs so rapidly, however, that one is liable to imagine that the groups are affected simultaneously.

Superficial nerve disturbance as a hypothesis is untenable, because, if the nerve endings had been the seat of the primary lesion, there would have been constant pain.

Unfortunately, I have never been able to obtain a section of muscle for microscopic examination (as far as I know such an examination has never been made), so I am unable to confirm Dr. Edsall's pathologic conclusions except by clinical exclusion.

The treatment in these cases has caused me no little concern. Quick relief of pain is clearly necessary and, in most of my cases, I have not been able to give relief soon enough to satisfy either the patient or myself.

A general anesthetic would seem to be indicated, yet I have never administered chloroform or ether because I make it a rule never to give an anesthetic when the patient has just been undergoing hard manual labor, unless it is absolutely necessary, for I have found that in nearly all such cases the result is bad. I have tried all the antispasmodics, and without effect. I have also pushed the hypodermic use of morphin just as far as I have thought advisable (the more experience I acquire in surgical and medical emergency work, the more conservative I become) and have had to wait for a rather extended period before I had my patients comfortable enough to be taken to their homes.

In one case a very mild interrupted current, generated by the magneto in an old telephone instrument, which was the only electric current convenient, was applied during the quiescent period, and, while it immediately started up a spasm, continued application seemed to shorten it and also to lessen the pain. I tried this application in three cases and these patients certainly recovered more rapidly than any of my former ones. It seems unreasonable, however, to believe that it could have been other than a coincidence, for it is entirely inconsistent to apply an excitomotor to an already contracted muscle.

The fact that Dr. Edsall has found that there is an entire absence of the chlorids in the urine should certainly give a clue to the future treatment.

My reason for selecting this subject was that the article in question is the first I have ever seen on the subject. It has given me a clearer insight into a condition which I recognized as being distinct but could not classify, and because I might, possibly, add a few points from my clinical experience.

There are a large number of men who have been in my position; men who have and will see a number of cases and these men, no doubt, will be stimulated to investigate a subject which, heretofore, has escaped scientific thought and which, until the recognition and preliminary classification by Dr. Edsall, was practically unknown to the medical man at large.

Now that investigation has been started, we may hope for better things in the way of effective immediate treatment and, perhaps, better still, for some method by which millmen may be protected from excessive nonradiated heat—to my mind the undoubted cause of this acute form of suffering.

4210 Butler Street.

A CASE OF POISONING FROM THE BITE OF A RATTLESNAKE

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WASHINGTON, D. C.

Few cases of poisoning by the bite of a rattlesnake have been observed by competent investigators with means at their disposal for a careful clinical examination, and for this reason, if no other, the case herein reported is of interest, but even this data is brief compared to what might have been accomplished had we known as much of venomous poisoning at the time of the accident as we do at present. Heretofore the information at our disposal has been chiefly deductions from animal experimentation, and, while in the main correct, fails to convey the bedside picture so necessary for a perfect conception of a case. The individual who is unfortunate enough to have suffered such an accident is rarely in close proximity to a hospital or laboratory, and a study of the patient is attended with difficulties that are quite apparent.

Patient.—R. R., male white, aged 50, attendant at Zoological Park.

History.—He has been a man of temperate habits, using alcoholic stimulants in moderation. From 1884 to 1900 he followed the sea for a livelihood, but for the past eight years he has been employed as an attendant at the National Zoological Park, detailed at the reptile house. It was while following his morning routine that he met with the accident which makes him the subject of this paper. August 17, while cleaning the cage in which five diamond rattlers (*Crothalus adamatens*) were confined, his attention was distracted momentarily. He had the lid of the cage raised and his hand resting on one side, the hand being partially in the cage and about three feet from the snakes. He felt a sharp prick on the middle finger of the left hand, proximal phalanx, and knew intuitively that it was the bite of a rattler.

Treatment.—He immediately sucked the wound and another attendant tied a string snugly about the finger, proximal to the injury. Within fifteen minutes, the wound was freely incised by Dr. Baker, superintendent of the park, and cauterized with 1 per cent. solution of potassium permanganate The digit was cyanotic and edematous from the ligature. There was entire absence of constitutional symptoms until the ligature was loosened, three-quarters of an hour after it was applied. An hour later a marked change occurred. From a tranquil and comfortable state he became much depressed physically, as indicated by cold sweat, thready pulse, nausea and sanguineous emesis. His condition became so grave that an ambulance was summoned and the patient conveyed to a hospital, not, however, before he was given 1/30 grain of strychnin hypodermically and large quantities of distilled water. One of his associates gave him two small drinks of whiskey.

Course of Disease.—On admission to the hospital, he was given strychnin gr. 1/30 hypodermically and a similar dose of the drug was ordered to be continued every three hours and continuous proctolysis instituted. The bladder was emptied by catheter and irrigated with salt solution. His temperature on admission was 99, pulse 120, respiration 26 and blood pressure (Riva-Rocca) 87.

Blood examination: Red blood cells, 4,600,000; white blood cells, 14,440 hemoglobin, 95 per cent., coagulation time 7½ minutes.

Urinalysis: Orange color, turbid, sp. gr. 1019, acid, flocculent sediment, albumin positive, sugar negative, urea 3 grains to the ounce. Microscopic examination showed (centrifuged) few granular casts, few pus cells, cell débris and epithelial cells.

General Symptoms: The skin was pale and moist, pupils were dilated but responsive to luminous impressions, and consciousness was retained. He complained of great pain in the hand and arm, and below the wrist the extremity was swollen and purpuric. In the course of a few hours an extravasation of blood appeared at the inner side of the elbow, followed by purplish streaks in the forearm, corresponding to the course of the ulnar and radial vessels. The discoloration did not disappear on pressure. The axilla was soon the site of similar chromatic phenomena, with little involvement of the arm. The swelling in the entire arm was noticeable. At 4 p. m. (approximately six and a half hours after the accident) he vomited eighteen ounces of bloody fluid. The hand was dressed with 1 to 1000 solution of bichlorid of mercury. The bleeding was free and soon penetrated the gauze. He slept for ten minutes between 5 and 6 p. m., and for a few shorter periods during the night. He was restless and frequently complained of pain in his abdomen. Twitching of the feet and hands was reported at 9 p. m., but the strychnin was continued in the same dosage. The salt solution was not well retained. At 11 p. m. 1 gram of Calmette's antivenomous serum was injected in the loose skin below the axilla, and it seemed to be absorbed quickly.

Second Day: First nourishment was given about 12:45 a. m. and an hour and a half later the man vomited blood-stained curds. He slept a few minutes in every two or three hours, and the twitching was well marked. The left side of the thorax anteriorly and posteriorly and the neck became swollen, indurated and purpuric, giving the picture of enormous contusions. Milk was given at 5:15 a. m. and coffee at 7:30 a. m. and immediately after the latter was taken the man vomited sixteen ounces of coffee-colored liquid. He expelled much of the salt solution, but it was estimated that he absorbed thirteen and one-half pints in less than twenty-four hours. Nourishment was suspended after the emesis. The swelling of the entire arm and forearm had become intense, with much interference with the circulation as determined by the coolness of the surface, but the radial pulse was retained. Blebs as large as pigeon eggs appeared on the limb, irregularly distributed. The hand was redressed owing to saturation of the dressings with blood and serum. No bleeding point was seen, only an oozing. The whole arm was swathed in moist bichlorid of mercury dressings. Blood examination (eighteen hours after patient was bitten), red blood cells, 4,000,000, white blood cells, 16,000, hemoglobin, 75 per cent., blood pressure, 100.

Third Day: The patient slept but fifteen minutes in the previous twenty-four hours, the wakefulness being probably due to both the pain and the strychnin. It had been necessary to catheterize him every eight hours until this time, when he became able to void urine. He vomited curds of milk at 12:45 a. m., 1:30 a. m. and 2:40 a. m., but without visible blood. Nausea was almost a constant symptom. All the salt solution was not retained. The arm was dressed with ichthyol ointment and the finger with bichlorid of mercury solution. There was practically no further involvement of the superficial tissues, the edema and extravasation remaining unaltered, except in the abdominal area, especially on the left side. His bowels moved during the afternoon, the first time since the injury. Nourishment was allowed, consisting of coffee and small quantities of milk. He had been decidedly more comfortable. His highest temperature in the twenty-four hours was 100.6, highest pulse rate 124, highest respiratory rate 24.

Blood examination: Red blood cells, 4,000,000; white blood cells, 15,000, hemoglobin, 60 per cent., blood pressure 110. The red cells show vacuoles, and slight crenation. There was no free pigment. Urinalysis: Amber, sp. gr. 1020, acid, flocculent sediment, slight trace of albumin, sugar negative, urea ten grains to the ounce. Microscopic examination (centrifuged), granular casts, pus cells, squamous epithelial cells and mucus.

Fourth Day: During the previous twenty-four hours the patient slept two hours in all. He was allowed solid food at this time, and seemingly enjoyed soft egg and toast. The sanguineous discharge from the finger continued and the hand and arm were redressed. He said that the pain in the hand did not abate. It is not an exaggeration to say that the limb appeared to be nearly double its normal size, with scarcely a spot of healthy skin visible. To the touch it was brawny and cool. On the inner aspect of the right arm, bluish mottling was noted. He spent an uneventful day, but rather more comfortable than the preceding ones. While the anemia was striking, withal his general condition had improved, his pulse rate being lower and his temperature hovering close about 100 F. Blood examination: Red blood cells, 2,800,000, white blood cells, 14,000 hemoglobin, 60 per cent. The disintegration of red cells was more marked than on the previous examination. There was slight crenation and many microcytes, poikilocytosis was noteworthy; blood pressure was 125. Urinalysis: Amber, acid, flocculent sediment, trace of albumin, sugar negative, urea seven grains to the ounce. Microscopic examination (centrifuged), few pus cells, few squamous epithelial cells

Fifth Day: The man was slightly irrational during the night previous, and got out of bed for a moment. The extravasation had extended almost over the entire right side of the chest and back as low as the crests of the ilia. He was rational at 9 a. m. and ate a breakfast of egg, milk-toast and coffee The salt solution was fairly well retained, but he expelled from 1 to 2 pints at long intervals. He perspired freely and had a dark brown stool. The arm was redressed owing to an accumulation of discharge on the gauze. His highest temperature in the previous twenty-four hours was 102.6 F. Urinalysis: Amber, 1010, acid, no sediment, no albumin, no sugar. urea, seven grains to the ounce. Microscopic examination (centrifuged), few leucocytes, few squamous epithelial cells

Sixth Day: He slept several hours during the preceding night and was comfortable during the day. The arm was redressed. The swelling and discoloration had not extended. The wound was ragged and necrotic, the finger cold, bluish black and anesthetic. The salt solution and strychnin were permanently discontinued. The highest temperature in the previous twenty-four hours was 101.4, highest pulse rate 108, highest respiratory rate, 24 He had been entirely rational, generally comfortable and had a splendid appetite. The paleness of the skin and conjunctivæ were noticeable and that he had lost weight was readily seen. Blood examination: Red blood cells, 2,000,000, white blood cells, 12,000, hemoglobin 45 per cent. Urinalysis: Amber, 1009, slight sediment, no albumin, no sugar, urea four grains to the ounce. Microscopic examination (centrifuged), few leucocytes, few squamous epithelial cells.

Seventh Day: He slept the entire night of Aug. 22-23. His only complaint was pain in the back of the neck. The arm was redressed as usual The swelling had not increased, and the discoloration remained stationary in extent and degree. Administration of two Blaud's pills, three times daily was begun.

Eighth Day: The night of August 23-24 was the best he had had, and the long sleep seemed to have refreshed him. The swelling in the arm had diminished, but the circulation in the finger seemed insufficient. He was allowed to sit up for a few minutes. The arm was redressed. Blood examination: Red blood cells, 2,480,000; white blood cells, 11,000; hemoglobin, 60 per cent. Urinalysis: Amber, 1014; acid, slight sediment, no albumen, no sugar, urea six grains to the ounce. Microscopic examination (centrifuged), pus cells, cell débris, urates and a few squamous epithelial cells.

Tenth Day: The patient had rested comfortably and gained strength in the previous two days. His appetite was good, he slept well and he sat in a rolling chair. The condition of his back and chest was not materially changed.

Eleventh Day: There was no change in the previous twenty-four hours. Blood examination: Red blood cells, 2,-800,000; white blood cells, 10,800; hemoglobin, 60 per cent. Urinalysis: Amber, acid, slight sediment, no albumin, no sugar, urea eight grains to the ounce. Microscopic examination (centrifuged), few pus cells, few squamous epithelial cells, amorphous urates.

Sixteenth Day: The swelling in the arm and chest was somewhat less, and the discoloration lacked the intenseness of the early period of the illness, except in the arm and forearm, where the pigment had not undergone any absorption. The finger was nearly mummified except at the seat of the wound, where the tissue was sloughing. Hemoglobin estimation, 65 per cent.

Twenty-second Day: The finger was amputated at the metacarpophalangeal joint under local anesthesia. The swelling of the chest and abdomen was much less, and the discoloration was subsiding. There was a bluish-black pigmentation about 1½ inches in diameter near the left acromion process, and a greenish yellow spot near the left clavicle and nipple. On the inner aspect of the left arm the extravasation was as deeply tinted as ever. The swelling of the arm had subsided but the arm was still swollen and indurated from the attachment of the deltoid to the finger tips. The affected arm measured 12½ inches in circumference at a point midway between the axilla and the elbow. At a corresponding point on the right arm, 11⅛ inches was the circumference. The lobe of the left ear, which was pricked for a blood drop on the day of admission, became extravasated with blood at the time and remained so until this date. The lobe of the right ear from which blood was subsequently drawn, showed no discoloration at any time.

Thirty third Day: The man had gained in weight and strength, but withal was much below normal. The forearm and arm were still slightly indurated and had a few discolored areas. The finger did not heal by first intention, but discharged pus and required daily redressing. He was discharged from the hospital at this time, but advised to return at intervals for observation.

December 1: The man returned to the hospital on this day for an examination of the blood, which was as follows: Red blood cells, 3,588,000; white blood cells, 9,000; hemoglobin, 87 per cent. He has continued Blaud's pills and his anemic appearance has been supplanted by a good complexion. He was much stronger and had been at work for several weeks. The finger had not entirely healed.

Without entering into an extended discussion of the entire subject, a brief summary perhaps would be of interest.

The poisonous snakes are of two general species, the *Colubridæ* and the *Viperidæ*, both with many subclasses. The cobra of India is of the former type, while the rattler is an example of the viperine. The toxic effects of the venom of the *Colubridæ* are manifested by general malaise, slight local reaction, late capillary hemorrhage and paralysis of the respiration, in marked contrast to the viperine venom, which causes an extensive local lesion which almost always results in gangrene, hemorrhages in the mucous membranes and effusions in the serous cavities.

The venom enters the wound by a groove or canula in the fang, communicating by a duct with a maxillary gland in which the poisoning is stored. The sac is ensheathed in muscle, contraction of which expels the venom. The amount which may be collected when the reptile strikes usually varies from 1 to 3 cm. with much variance in toxicity. Calmette found that immediately after moulting or after a prolonged fast the venom was ten times more active than after a plentiful meal or before the moult. It is estimated that 1 gm. of the cobra venom will kill 165 adults. It is to toxalbumins or, more accurately, protoalbumoses and heteroalbumoses that the properties of venoms are essentially due. *Colubridæ* venoms pass slowly through vegetable membranes and with great difficulty through animal parchments. The viperine venoms are not dialyzable and when heated to 72 C. become almost inert. The venoms of *Colubridæ* destroy the coagulability of the blood, asphyxia supervenes and the death struggle is brief. The venoms of *Viperidæ*, on the other hand, produce violent local changes. Injected into the peritoneum of an animal, there is an enormous afflux of sanguinolent serosity; the capillary vessels of the serous membranes immediately become distended, allowing the blood to filter through their walls, and the animal succumbs in a few hours. The hemolytic action of the venoms of *Viperidæ*, especially the rattlesnake, is very weak. A wide range of differences is exhibited by the various venoms as regards the hemolytic power in the presence of normal heated serum. If cobra venom be added in increasing doses, hemolysis augments up to a certain point, beyond which the destruction of corpuscles shows progressive diminution. The leucocytosis is much more intense and rapid with cobra than with rattlesnake poisoning.

If the therapeutic measures which we possess could be applied promptly in each case of poisoning by the bite of a venomous snake, the mortality would be much lower than the present, from 25 to 40 per cent. The venoms are partially neutralized by ammonia and by potassium permanganate, but the best chemical antidote is 2 per cent. solution of the hypochlorite of lime, which will immediately and surely destroy the venom by contact. When possible to apply the ligature proximal to the wound, we have a means which controls the intake of venom, but endangers the viability of the member so constricted. Calmette states that Halford's method, injection of ammonia near the wound, is worthless, and that Mueller's, free stimulation with strychnin and generous feeding, is no better. In this case, the Mueller treatment was instituted at the suggestion of Dr. Charles Wardell Stiles, of the Hygienic Laboratory. Animal experiments certainly confirm all that Calmette has claimed for his serum, antivenine.

The dose of antivenomous serum is 10 c.c. of the liquid or 1 c.c. of the dried preparation, dissolved in 10 c.c. of warm sterile water and injected under the skin where absorption is rapid, regardless of the location of the bite. In desperate cases, injection may be made into a vein or the subcutaneous dose may be trebled. The time that elapses between the infliction of the wound and the use of the serum bears a definite relation to the efficiency of the serum; as little time as possible should be lost in employing this valuable agent.

The case herein reported may be used by the Mueller school as an argument in favor of that particular treatment, and likewise it may be a source of comfort to the Calmette followers to know that the patient recovered after the use of the serum; A. Mueller[1] states:

> Cases may occur in which the quantity of strychnin required to subdue the symptoms and to be injected in a few hours may amount to a poisonous dose, but to urge this as a reason against the use of it is—to say the least of it—puerile, since the two poisons neutralize each other, the strychnin not causing muscular spasms until it has completely disposed of the snake-poison.
>
> To inject in urgent cases one-sixth, in mild cases one-twelfth, of a grain every half hour until the effects of the snake poison are entirely removed, is perfectly safe practice which none who follow it will have cause to regret.

Calmette[2] says:

> "Neurotoxin being the essentially active substance in venoms, and that to which the dangerous properties of poisonous snakes as regards man and domestic animals are especially due, it is the effect of this that it is most necessary to prevent. Consequently, the first quality that an antivenomous serum ought to exhibit in order to be capable of being used in the therapeutics of poisoning is the possession of an antineurotoxic power as high as posible. This antineurotoxic power is easily obtained by employing cobra venom for the fundamental immunization of the horses destined for the production of the serum. Antineurotoxic serum thus prepared shows itself perfectly capable of preventing all effects of intoxication from cobra bites, which are much the most frequent in India. In the same way it shows itself sufficiently efficacious with regard to colubrine and viperine venoms, the neurotoxic activity of which may cause death. But as it does not possess any preventative action upon the local effects or hemorrhagin, to which the noxiousness of certain viperine venoms—such as those of *Lachesis*—are almost exclusively due.
>
> In countries in which *Viperidæ* are very common we must therefor not confine ourselves to vaccinating animals that produce serum solely against the neurotoxin of cobra venom, for instance; we must prepare these animals, after having immunized them to cobra venom by injecting them with progressively increasing doses of the various venoms derived from snakes that are most frequently met with in the district.
>
> Nothing, moreover, is easier than to train animals vaccinated against cobra venom to tolerate strong doses of the venoms of *Lachesis*, *Vipera russellii*, *Crotalus*, *Hoplocephalus or Pseudechis*. In a few months we succeed in obtaining serums very active against these different venoms.
>
> Utilizing the horse as producer of antitoxin, I have prepared by this method polyvalent serums capable of preventing the local action of viperine venoms, and of suppressing *in vitro* their coagulant and proteolytic effects on the blood."

Calmette's serum can be purchased in New York and Chicago and should be employed in every case possible. When the serum is not immediately available, the strychnin treatment is the best substitute.

Clinical Notes

NECROSIS OF THE LIVER AFTER CHLOROFORM ANESTHESIA *

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It is not so much for its statistical value as again to call the attention of the profession to the dangers of chloroform as an anesthetic that this case is reported.

Patient.—Male, aged 19, weight 152 pounds, student, reared on a farm, good habits.

History.—Previous history is negative, except that the patient was subject to attacks of "indigestion" from childhood. He had an attack in February, 1908, which was diagnosed as appendicitis. At that time there was decided tenderness in the right iliac region over the site of the appendix, some elevation of temperature, and rigidity of the right rectus muscle. After an interval of about two weeks, the patient apparently recovered from this attack and returned to school. On April 16 of the same year he was awakened early in the morning by severe pain in the abdomen, followed shortly by vomiting and diarrhea. There was nothing in the diet of the previous day adequately to explain this illness. The vomiting and diarrhea continued until about 7 a. m., shortly after which he was seen by his family physician, Dr. F. A. Wicker, of Livonia, N. Y. At this time there was no elevation of temperature and the pulse rate was 84. Severe pain and marked tenderness to slight pressure were present throughout the abdomen, but most marked over the appendix. By the next morning, April 17, the symptoms and signs of the disease had apparently abated somewhat and the patient seemed to have improved except for a slight elevation of temperature and pulse rate.

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[1] Australasian Med. Gaz., Sydney, 1888-9, viii, 41, 209-210.

[2] Venoms, Venomous Animals and Antivenomous Serum Therapeutics, 1908, p. 250.

* Read before the Rochester Pathological Society, Feb. 18, 1909.

Operation.—The patient remained in this condition for the next three days, when he was operated on by Dr. Becker. An opening was made through the right rectus muscle and an abscess, thoroughly walled off, was found in the region of the appendix, containing about eight ounces of foul-smelling pus. The appendix was removed, the pus carefully wiped out and drainage inserted. The anesthetic used was chloroform and the amount employed did not exceed one-half ounce. It was administered by a thoroughly competent anesthetist, and the course of the anesthetic and the operation were uneventful, not occupying more than half an hour.

Postoperative History.—The patient recovered from the anesthetic promptly and was conscious within fifteen minutes. He apparently did well until the third day after the operation, his temperature at no time going above 100 F. and the pulse rate varying between 80 and 90. There was free drainage from the wound, no distention of the abdomen and no vomiting. There was an absence of pain. On the morning of the third day, however, his pulse dropped to 66, his temperature then being 99.2 F. About noon he was noticed by members of his family to act in an irrational manner, and apparently he did not recognize his mother. This was the first indication of mental disturbance. About two hours later acute mania developed, and it required the combined efforts of several persons to restrain him. One-eighth grain of morphin was administered hypodermatically at intervals of about two hours until the following afternoon. This served partly to control the mania. From that time he remained passive, lying on his back, pulse increasing in rapidity and becoming weaker and the temperature gradually rising. He passed urine involuntarily at intervals of about three minutes. After lying in this condition for several hours tonic convulsions developed which were most marked in the arm muscles. This was followed by coma and Cheyne-Stokes respiration. These symptoms became more and more profound until his death, which occurred five days after the operation and about forty hours after the first indication of any mental disturbance. At the time of the operation there was a slight yellow tinge to the sclera. This jaundice became general and at the time of death was rather noticeable.

Urine: After the operation two examinations of the urine were made. The first specimen was of acid reaction, specific gravity 1025; sugar and albumin absent. The second specimen contained trace of albumin, but in other respects was the same as the first.

Autopsy.—Permission to do a partial postmortem was obtained and was performed on the following day by Dr. Williams—about twenty-four hours after death. In deference to the wishes of the family, only the abdomen was examined. No attempt at embalming had been made. The body was that of a young male, fairly well nourished, slight, general jaundice. In the right iliac region there was the incision of the recent operation, about 6 cm. long, closed by sutures and containing a drainage tube. The edges of the wound were clean and presented to the eye nothing abnormal. The abdomen was opened in the median line, the omentum was free and apparently normal. A completely walled-off sac about the size of a lemon, made up of old adhesions, was found in the right iliac region. This sac was empty, clean and practically odorless. The peritoneum, both parietal and visceral, to the naked eye, was apparently normal. The kidneys and adrenals, pancreas and spleen, were carefully examined and presented no evidence of important pathologic change. The gall bladder and bile ducts showed very little evidence of inflammatory trouble—in fact, the liver was the only organ in the body that exhibited signs of disease, but even the changes in this organ to the naked eye were not particularly striking. It was smaller than normal and weighed approximately 1,350 grams. Its surface was smooth. The capsule was slightly wrinkled and of normal thickness. Inflammatory adhesions were absent. The liver substance was pinkish-gray, and was softer than normal. On cutting, this softening was particularly noticeable and the friability was increased. The cut sections were yellowish-gray. There was but little bleeding. Some portions were distinctly mottled. There was very little discernible change in blood vessels or bile ducts. The lobules were made out with difficulty or not at all. Sections were made of the kidney, spleen, pancreas and liver. The liver alone presented evidence of marked change.

Microscopic Appearance: This was in striking contrast to the macroscopic appearance. The lobules were smaller than normal and were indistinctly defined. The liver cells were practically all necrotic. Occasionally, a lobule would be found in which the change was less evident at the periphery than in the central part. A fat stain was not used. The kidney section showed slight cloudy swelling, otherwise was negative.

Bacterial Examination: Stab cultures in plain agar were made from the various organs examined, including the peritoneum and abscess cavity. With the exception of the latter, all were negative. In the abscess cavity was found a mixed culture of bacilli and cocci—their identity, however, was not established.

Urine: About 50 c.c. of turbid, dark brown urine was aspirated from the urinary bladder and examined. Tests for sugar and bile were negative. Albumin was present in small amount. There was a distinct odor of acetone and a marked reaction was obtained with dilute ferric chlorid solution, suggesting the presence of diacetic acid. Microscopic examination showed a few blood cells and a few hyalin casts.

The history of the case, together with the postmortem findings, led us to attribute the death to necrosis of the liver, which we believe, in the absence of other explanation, to be due to the toxic action of the chloroform used as the anesthetic. It seems proved that chloroform can cause death in either of two ways: first, after the manner more commonly understood, by its depressing and paralyzing action on the respiratory center; and second, by its destructive action on the liver. In the former case, the amount of the drug used and the concentration of the dose bear a relationship to its toxic action and the time of death, which is immediate. In the latter instance, its toxicity is due to its action as a protoplasmic poison on the liver cells and the death, which is delayed for several hours, or even days, results, as has been reasonably explained by Wells,[1] from the perverted metabolism of that organ. Neither the extent of the destruction nor the degree of the toxicity seem to bear any relation to the amount of the anesthetic used or to the method of administration. Rather the chloroform seems to act as a fulminating agent for the marked, perverted katabolism of the liver cells, in which the liver not only fails to detoxicate the poisonous products of metabolism that are brought to it by the blood stream, but it undergoes a process of self-destruction or autolysis, and it is the combined poisons of these two perversions of function which directly induce death.

388 Monroe Avenue.

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[1] Arch. Inter. Med., vol 1, p. 589.

Surgery of Peritonitis.—The wise surgeon never forgets that the diaphragmatic zone is the danger area of the peritoneum and should not be interfered with in general septic peritonitis unless it is itself the seat of primary infection, as in perforation of gastric ulcer of the lesser curvature.—G. A. Bingham, *Saskatchewan Medical Journal*, January.

CASES ILLUSTRATING THE PSEUDOPARALYSES OF EARLY CHILDHOOD

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If a large number of sick children be observed it will be noted that apparent paralysis is not rare. In the absence of signs of the causative disease, it will be difficult to exclude true paralysis, such as anterior poliomyelitis, the cerebral palsies, various spastic paralyses and other less common diseases of the nervous system. My case records show that these cases group themselves in three classes:

I. THE PARALYTIC SYMPTOMS OF RACHITIS

Thomas and Furrer,[1] in their article reviewing one hundred cases of rickets, stated that 40 per cent. of infants and children in the hospital class between the ages of 6 months and 2 years have rickets. Morse, of the Infants' Hospital, Boston, showed that 80 per cent. have the characteristic lesions of the disease. One becomes convinced, therefore, that few institutional infants escape rachitis; and I have observed that a large number of dispensary babies are likewise afflicted. Although rickets is a disease of the poor, due to the influence of bad surroundings and bad feeding, it may occur in well-to-do families, where, however, the physician sees the case earlier and the disease is not allowed to go on to the gross changes observed in the neglected cases.

The impairment first noticed is the failure of the child to begin or to keep on walking. In more severe cases, there is complete non-use of the legs and arms; when this so-called paralysis precedes the osseous changes as it commonly does, the case may closely resemble a true paralysis. The muscles of the back and legs become affected by the disease and lose their tone, the ligaments are relaxed. This is as much a characteristic feature as are the nervous and bone changes. Physicians frequently see infants who are unable to hold up the head long after the proper age, and who can not sit erect, due to muscular weakness in the neck and back. There are no distinctive pathologic changes[2] in the muscles which, under the microscope, look pale and their fibers are infiltrated with fat; sooner or later, these muscles will show atrophy from disuse. If the child does not begin to walk at the normal age, about 24 months, a pathologic cause should be looked for.[3] It matters not whether the baby developed the disease early and has never been able to use its legs, or whether, as a later manifestation, there has been a cessation of walking. In either case, the same differentiation from true paralysis must be made. Holt[4] states that he has seen expert diagnosticians unable to exclude poliomyelitis except by the electrical reactions. The reaction of degeneration is absent in rickets; it is also absent in cerebral paralysis; that measure, therefore, does not aid in the differentiation of rickets and cerebral palsy. The latter condition, however, has increased patellar reflexes, cerebral symptoms and spasticity of the legs.

Case 1.—J. T., male, aged 2, white. Father and mother have always been well, and are of the prosperous farming class. Four other children are all well.

History.—The patient had whooping cough at the age of two weeks, lasting six weeks, and summer diarrhea at eight months, when cutting first tooth. He began to walk at one year of age. He has all his teeth now. At the age of 21 months the parents noticed that the right leg was "crooked"—markedly knock-kneed—while the left leg was straight. The child began to show a disinclination to walk and in a few weeks stopped walking and would not even stand by holding on to a support.

Examination.—When I first saw him he was 2 years old. The head circumference was 19¾ inches; anterior fontanelle was not closed; intelligence was normal; chest was funnel-shaped, rosary present; there were enlarged epiphyses at wrists and ankles. He was pot-bellied, usually constipated. Weight, 22 pounds; temperature, 99 F. He could move his legs in all directions, but ordinarily refused to do so; he would not stand or walk. There was some atrophy of the leg muscles. Reflexes were present.

Remarks.—The child had been nursed for the first 18 months, but since then (6 months) he had been fed exclusively on boiled cows' milk as he liked it boiled and did not care for other food. Two months later I saw the child after he had been taking an antirachitic diet and he was standing on his legs by holding to a chair.

Case 2.—C. A., male, aged 22 months, white, American. Family history good, no syphilis.

History.—The child weighed 8½ pounds at birth and nursed 14 months. He began to talk at 10 months and was beginning to walk when, without any apparent illness, he refused to stand or to walk even with assistance. Since then he had made no effort to walk, though he crawled and move his legs in all directions.

Examination.—The head circumference was two inches more than the average; the teeth had been decayed since their eruption; the abdomen was unduly prominent, and rosary was present. Wrist and ankle epiphyses were enlarged. He sweated at night about the head. Since weaning he had been continuously on condensed milk modified with water. The electrical reaction showed no paralysis. Reflexes were diminished; muscles were flabby; no foot drop. Intelligence seemed normal. When last seen the child was beginning to walk.

Out of thirty-three undoubted cases of rachitis seen in my dispensary and private practice in the past two years, these two cases belong to the class that stops walking after once beginning. The other class of cases, in which a pseudoparalysis exists but the child has never attempted to walk, does not vary essentially from the description of the above cases.

II. PARALYTIC SYMPTOMS OF SCURVY

It is not rare for scurvy and rickets to coexist. Koplik and Holt quote statistics from the American Pediatric Society showing that 45 per cent. of scorbutic patients gave undoubted manifestations of rickets, and that most of these cases coming to autopsy showed the gross changes of rickets. This leaves 55 per cent. of patients without symptoms of the disease. Whether or not rickets coexists, a pseudoparalysis or immobility of the legs occurs as the most common symptom of scurvy. In twenty-six cases of scorbutus tabulated by Starr,[5] in twenty-five there was complete immobility of the legs, and in one it was only partial. Of these 26 cases, 24 showed swelling and enlargement of the legs or thighs; 24 of the 26 infants had cut teeth, and showed scorbutic changes in the gums, while the 2 who as yet had no teeth, possessed normal gums. The spongy gums are present only in infants who have teeth.

The apparent paralysis is a refusal of the child to move the legs due to pain in some cases, due to epiphyseal separation in others. It is at first simply voluntary; later the legs may become helpless. In 184 cases reported by Holt, all but 2 involved the legs, only 2 the arms alone, and 42, both the legs and the arms. Paralysis of the arms alone is therefore rare and when present it resembles syphilis. Tuttle[6] states that the false paralysis of scurvy is of a spastic, not flaccid nature. The limbs are flexed because that is the more comfortable position. Sometimes the atrophy is extreme, is present over the entire body, and is not confined to the arm or leg which is the subject of the diagnosis. The electrical reactions show no paralysis; reflexes may be diminished or lost. The swelling which is present in the bones is fusiform, and is responsible for the extreme tenderness and pain. These two symptoms help to differentiate scorbutus from poliomyelitis. Antiscorbutic treatment usually effects prompt and complete cure, of course with no residual paralysis. The history, cachexia, and hemorrhages beneath the skin and periosteum, and the inflammatory evidences around the epiphyses complete the usual symptomatology of scurvy. The following case is typical except that there were no apparent hemorrhages of the skin.

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* Read before the Kansas City Academy of Medicine, March, 1909.

[1] Cleveland Med. Jour., December, 1907.

[2] Rotch: Text book of Pediatrics, fifth edition.

[3] Guthrie: Functional Nervous Diseases of Childhood.

[4] Holt: Diseases of Infancy and Childhood, fourth edition.

[5] Diseases of the Digestive Organs in Children.

Case 3.—Baby S., aged 2 years, white, in extreme poverty and filthy surroundings. Parents were afraid to give the child fresh air for fear it would catch cold. Dentition was normal. The child had been fed for two years on boiled cow's milk. It had been sick for six months. The family first noticed that the child cried when handled. Some of the teeth were loose at time of the examination, and the gums were blue and swollen. The arms and legs were so tender that to keep the child from crying it was carried on a blanket. Apparently it could not move its limbs. In two weeks, under the administration of fruit juices, the helplessness disappeared.

III. SYPHILITIC PSEUDOPARALYSIS

My records show that out of four infants of 3 months or less, having early hereditary syphilis, three were brought because of apparent paralysis; in two instances both arms were involved, in the third the legs. The phenomenon that usually accompanies this pseudoparalysis is an enlargement of the distal end of the bone due to an osteochondritis, specific in nature. This occured in my cases at the lower ends of the humerus and the tibia. The symptom of uselessness of the limb may occur with or without epiphyseal separation, (Tuttle[6]). There is also periostitis, which causes pain and sensitiveness from handling. The condition does not usually exist at birth. In my cases all the infants were normal at birth and developed the immobility at varying periods in the first few months. There are no evidences of real paralysis; the mother notices that the child has stopped moving the limb, and the facts that the infant cries on handling and that in thin subjects swelling is discovered leads the family to believe that the limb had been broken from careless lifting, or from a fall. The evidences of degeneration in the muscles is wanting. In fact, it will be observed that the child can move the limb, but evidently pain causes it not to. Antisyphilitic treatment gives diagnostic results as does the Wassermann reaction, which I have not yet tried. I wish to report one case belonging to this class of pseudoparalysis of the new-born.

Case 4.—Baby E., girl, aged 2 months, white, American parentage. Mother had had no miscarriages, nor had she had other children. No syphilitic history was *obtainable*. The baby had had several series of eruptions, which the mother called hives. At the age of 6 weeks the right arm became helpless; four days later the left arm also became helpless. The mother then noticed swelling at the elbow. The child could move its fingers and could hold up its arms when once raised. It cried when handled or undressed, though it nursed well.

Examination.—This showed a well-nourished infant, arms motionless, swelling above both elbows, motion at elbow joints caused crying. The soles of the feet were covered with flat, dry papules. Temperature was 100.2 F. Daily administration of 20 grains unguentum hydrargyri was effective. Motion returned in a few weeks. Tumor, pain and rash disappeared.

Syphilis as a cause for never beginning to stand or walk is shown in the report of the next case. This child was only 16 months old and might yet have begun unaided to walk, yet the fact that it could not even stand, coupled with the history, shows that the condition was pathologic.

Case 5.—C. L., negro, aged 16 months. The mother had had the initial sore at the age of 16 and was never treated. The child was nursed at the breast. There were no evidences of rickets. There was a rash on palmar and plantar surfaces at the age of three months followed by enlarged glands and linear ulcers of the lips. He had seven teeth, wide apart and small. At the time of examination there were rhagades in both corners of the mouth. There was a large scar from a chronic ulcer over the sacral region. He had made no effort to walk or to stand. Intelligence seemed normal. He could move legs in all directions.

Treatment.—Bichlorid of mercury gr. 1/200 was given three times a day, and was followed by rapid disappearance of the sores. At last examination the child was beginning to walk.

Case 6.—This boy, W., aged 5½ years, was much older than the children usually suffering with pseudoparalysis from syphilis. The father had a long standing fetid nasal catarrh; the mother had large chronic ulcer of the face, pronounced syphilis by Dr. Sutton. She had one child which had snuffles and rash, dying at three weeks of age. The patient's milk teeth were all present but had always been bad. He had been delicate since birth and during first few months had an eruption, which the mother called eczema. For several weeks before I saw the child he had been crying at night with pain in both knees. One week previous to examination he fell to the floor—a trivial accident—and was thought to have injured his knees. He had since refused to walk, and showed pain on attempted motion of knee.

Examination.—Reflexes were normal. Knees were apparently somewhat enlarged; he held them flexed and did not attempt to move them, but the loss of motion was only voluntary. Cervical and inguinal glands were enlarged. He had interstitial keratitis, according to Dr. Kimberlin and other oculists who have examined him.

Operation.—Administration of iodids gave no improvement, neither did inunctions of mercury. Under large doses of protiodid of mercury, grains 2 daily, the symptoms rapidly disappeared, and six months later he had gained six pounds in weight and was walking normally.

CONCLUSIONS

1. Pseudoparalysis is not rare in rickets, scurvy, and syphilis.

2. When it is the earliest symptom noticed in these diseases diagnosis is difficult. Other evidence should be looked for.

3. It would be hard to group three other such serious conditions of childhood which have so *favorable* an outcome under early treatment.

Altman Building.

A Liberal Education.—*The* content of learning, the method of instruction, the beauty and force of intellectual *atmospheres*, religion, the studying of the student, the personality of the teacher, all and each are the forces and conditions which help to make the liberally educated man, and therefore help to constitute a liberal education.—C. F. Twing, *Am. Acad. of Med.*

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[6] Carr's Practice of Pediatrics.

TWO CASES OF SUPPOSED TRAUMATIC HERNIA

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CHICAGO

The following cases appear of sufficient interest to warrant record as illustrating instructively two weak points in the practice of surgical diagnosis: (1) The easy thoughtlessness with which the ordinarily wide-awake surgeon falls into the habit of either allowing the patient to make his own diagnosis or of carelessly perpetuating the diagnostic errors of his predecessors; (2) the willingness with which the average surgeon accepts the doctrine of "traumatic" hernia, without ever so much as considering the possibility of error in the diagnosis of either hernia or trauma.

Case 1.—*History.*—A. B., aged 28, railroad station helper, a tall, lanky, unhealthful looking countryman with indefinite family history; while between a heavy baggage cart and a train, was contused in the left groin and back. There was moderate disturbance in both regions, with no important objective symptoms, and he remained at home for three days. In about four weeks he discontinued work and consulted a surgeon in his home town in southern Illinois for a small swelling in the same groin. The swelling was not glandular, was partly reducible, and was apparently a sacculated structure not identical with any of the anatomic elements of the groin. The surgeon made a diagnosis of traumatic hernia, advised a truss, and a suit for damages was instituted, based on a supposed connection between hernia and accident. The patient wore the truss but a few hours, discarded it on account of pain, and went to another physician, who applied a spica and a soft pad, confirming the original diagnosis. During the subsequent four months this individual saw eleven more medical men who concurred in the diagnosis of traumatic hernia, but were not allowed by the attorneys in charge of the case to operate. He was, however, furnished with several written opinions setting forth the fact of the hernia and its traumatic origin. Meanwhile the defendant in the suit was comforted by the assurance of two of its surgeons that "the hernia was a pretty bad one." After four months the patient felt so much pain that he came—against the advice of his attorneys—to Chicago, where he accepted the offer of operation tendered by the defendant. Prior to the operation, which I was instructed to perform, he was seen by two surgeons, who accepted the diagnosis of hernia. In this diagnosis I incontinently concurred, although I agreed with another surgeon that the hernia was "a queer one."

General Examination.—The patient was rather emaciated; had been in bed or reclining for some time before his journey to Chicago; and was examined—not very carefully, it must be admitted—in bed, prior to operation. He was in the hospital thirty-six hours, during which time the following observations were made: Urine normal: no vomiting; tongue clear; bowels moving normally; leucocyte count 10,000; temperature, a. m. 99, p. m. 100.

Local Examination.—The patient was inclined to lie on the opposite side with knee and thigh slightly flexed to relax tension. The abdomen was rather tense but not distended. In the left groin just above the middle third of Poupart's ligament was a flattish, tender mass, not discolored, capable of partial reduction but returning immediately on removal of pressure, about the size and shape of a *Bent water-cracker.* The mass appeared softish, giving an indistinct fluctuant feel, but was surrounded by a "rind" of harder material, apparently the result of chronic inflammation. On percussion, the mass gave out a note which appeared tympanitic and suggested adherent bowel near the internal ring. One of the examining surgeons suggested that the hernia was of the properitoneal variety, and that the flattened shape was due to the insinuation of omentum between the layers of the inguinal structures.

Operation.—The usual incision for inguinal hernia showed the "rind" to be composed of inflammatory exudate, and a deeper incision through the "rind" opened a large psoas-pelvic abscess containing cheesy pus without blood. The pus originated from an ulceration of the third or second lumbar vertebra, had burrowed into the pelvis *via* the psoas sheath, had pushed the peritoneum up and back, to point, finally, external to the deep epigastric artery behind and through the structures composing the middle part of the inguinal canal.

Case 2.—*History.*—C. D., Polish laborer, aged 26, who spoke no English, fell down an elevator shaft, fracturing the right leg, contusing and lacerating the right thigh subcutaneously, and contusing the sacral region. The sacral contusion resulted in an enormous hematoma, from which later on was evacuated about three pints of blood. The patient was not vomiting; and his bowels were moving.

Examination.—In the left inguinal region, 1 to 2 cm. above the inner third of Poupart's ligament, was a hardish mass, *non-tympanitic,* irreducible and non-fluctuant, about the size of an apricot, tender and slightly discolored at its most prominent part. There was no impulse on coughing. The mass was painful, and the patient denied that he had ever had any previous trouble at the point in question. This case was brought to my notice as a "traumatic hernia" and was regarded as such by several surgeons who had previously examined it. I am not a believer in traumatic hernias and therefore made a most careful examination with a view to excluding *either* traumatism or hernia. It was impossible to exclude local traumatism, since convincing positive evidence was present in the form of ecchymosis. Although there was no bowel disturbance, and the swelling was recent, was not tympanitic, was quite rigid and irreducible, it was impossible to exclude hernia on account of the location and shape of the swollen mass. Although in doubt, I ventured the tentative diagnosis of old contused omental hernia of the direct variety without bowel contents. The operator's original diagnosis was femoral hernia. Although the swelling was above Poupart's ligament, this diagnosis was quite possible, since it is a well-known fact that certain femoral hernias, after emerging in the usual manner, turn upward to lie on or above the ligament. Prior to operation the operator altered his diagnosis to hematoma of unknown origin—a safe opinion in view of the ecchymosis.

Operation.—A cautious incision over the swelling opened into a torn and bloody mass of muscular tissue which proved, after the incision was extended across the ligament into the thigh, to be the lacerated and upturned distal end of a proximal fragment of the adductor longus, that muscle having been torn completely asunder by the violence of the fall.

85 Rush Street.

A SIMPLE STAIN FOR BLOOD SMEARS (TIEDEMANN)

JEROME E. COOK, M.D.
ST. LOUIS

There are certain requirements which a blood stain must fulfill in order that it may be of use in the general routine work of the practitioner. It must be capable of quick and easy preparation; it should keep indefinitely; it must possess absolute simplicity in its application; and it must act quickly and reliably at all times. If, besides possessing these necessary qualifications, it may be used for other purposes—for staining pus, sputum, etc.—its value is so much enhanced. Despite the many modifications of the Jenner-Romanowsky stain which have from time to time been proposed, none which has come to my notice so admirably answers the above requirements as the one described about three years ago by Dr. E. F. Tiedmann.[1] Those who have used this stain have soon discarded all others for their routine work, and I feel that its value has been so thoroughly demonstrated in the rather limited circle in which it has been known and used, that I am warranted in bringing it more prominently to the attention of the profession. The technic of its application is still simpler than that of the Skelton stain so highly recommended by Hayhurst[2] recently. The stain is prepared as follows:

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[1] Quart. Bull. Med. Dep. Washington Univ., *December,* 1905.

a, A 1 per cent. solution of methylene blue (Höchst, medicinally pure) in pure methyl alcohol, and b, A 1 per cent. solution of eosin (Grübler, pure) in pure methyl alcohol are kept on hand. Equal parts of a and b are mixed, and the stain is ready for immediate use. This is a saturated solution of the stain and I have found it better to dilute this with one-quarter to one-half its volume of methyl alcohol. It is also advisable to make up only enough of the mixed stain to last four or five weeks as it is needed, on account of the evaporation of the alcohol which will take place if the stock solution is frequently opened. If kept corked, however, the mixed stain keeps indefinitely, one sample which I made more than four years ago being as good to-day as the day it was made. Especial stress must be laid on the purity of the ingredients, particularly the methylene blue.

I recommend that only the Höchst, medicinally pure, be used. This can always be had from E. Leitz, Chicago and New York, if not elsewhere. The ordinary brands of methylene blue do not give good results. Merck's methyl alcohol, the brand marked "Highest Purity," has proved entirely satisfactory and is easily obtainable; the ordinary methyl alcohol must not be used. The bottles must be chemically clean and dry before using, and must be kept tightly stoppered.

TECHNIC

The stain is particularly adapted for cover-glass preparations. For staining blood the film should be thin, even, air-dried, and preferably not more than twenty-four hours old. No heat fixation is necessary. The cover-slip, held in a good cover-glass forceps, is flooded with the stain by means of an ordinary medicine-dropper. This dropper should be kept separate, should never be used for any other purpose, and should not be washed. The stain is allowed to act for one-half to one minute and is then slowly washed off with distilled water added drop by drop, preferably with another dropper kept aside for the purpose. If a deeper stain is desired, (and I prefer this second technic) the stain should be allowed to act for one minute, then five drops of distilled water added, and this allowed to stand for two or three minutes, and then washed with distilled water. The film should be stained pink. Under the microscope the red cells appear pink, the nuclei deep blue, the neutrophile granules light pink, the eosinophile granules deep pink or bright red, the basophile granules a deep purple, the blood platelets a light blue, malaria plasmodia and bacteria blue. Polychromatophilic stippling is very well shown.

For staining pus, throat smears, sputum, and other exudates the stain should not be allowed to act more than one minute. It is an excellent stain for the gonococcus and the ordinary pus cocci. For staining the diphtheria bacillus I have long ago discarded the Loeffler's blue in favor of this stain. The stain should act from one-half to one minute and shows the metachromatic granules most beautifully.

I can most heartily recommend this stain for all ordinary routine blood work, and for most of the other usual stained preparations. No other stain which I know of is so simple in preparation and application, gives such uniformly good results, and has such a wide range of usefulness.

A CASE OF BRADYPNEA IN ADVANCED PULMONARY TUBERCULOSIS

CHARLES M. MONTGOMERY, M.D.
PHILADELPHIA

History.—The patient, M. H., aged 18, single, was a clerk. His uncle died of lung trouble over thirty years before. The patient was never very strong, but considered himself healthy. He had had a cough for five winters, and steadily for a year past. The cough was worse since an attack of the grip six months before the patient was seen by me. He had typhoid for eleven weeks two years before he was seen. He was seen for the first time May 5, 1908. His chief complaint was anorexia. He had cough, expectoration (2 ounces), moderate dyspnea, occasional palpitation of heart, no hemoptysis or night sweats.

Examination.—His weight was 133 pounds (138 a year previously), his height 5 feet 11 inches. (He had grown one foot in five years). His temperature was 100.5, pulse 104, respirations 10 to 12. He appeared a little childish for his age, his emaciation was marked, his chest long and flat, expansion poor. The heart showed marked accentuation of second pulmonic sound, otherwise normal. The lungs were extensively involved, practically all of the left lung being involved; also the right upper lobe, part of the middle lobe, and the upper part of the lower lobe. There was a small cavity at the right apex and a large cavity in the left upper lobe.

Course of Disease.—The patient improved temporarily. In September he developed an ischiorectal abscess, which ruptured. The urine about this time was acid; specific gravity 1010; considerable albumin; no diazo reaction; no sugar; many leucocytes; a few dark granular casts and a few epithelial cells. Four days before death the pulse was 112, respirations 13. The patient was remarkably free from pain in chest or abdomen. There were no signs of meningitis. Practically the only drugs use were strychnin, creosote and iodin (locally). The patient died Nov. 13, 1908. No autopsy was obtained.

Respiration.—The respiratory rate per minute out of eight times recorded by myself during the last six and one-half months of the patient's life was 10 once, 11 once, 12 three times, 13 twice, and over 20 once. The respirations were regular, quiet, slow, fairly deep, and unaccompanied with any effort or strain. The patient's mother kept records of the respirations during the last three months of his life, 165 in all. She was intelligent, careful, somewhat familiar with hospital work, and her recorded respiratory rates averaged a little higher than my own. Her and my records together made 173, divided as follows: Respiratory rate per minute: 10, 1 time; 11, 2 times; 12, 41 times; 13, 20 times; 14, 81 times; 15, 22 times; 16, 4 times; 17, 1 time; over 20, 1 time. The rate ranged from 10 to 17, with only one exception. It never rose above 15 with but six exceptions. It was below 15 145 times (83.8 per cent.). The afternoon and evening rates averaged a little higher than the morning rates. The temperature was usually low in the morning, often rising later in the day to 100 or 102.5. The pulse varied between 104 and 132.

Hutchinson gives the normal respiratory rate as 16 to 24. Bradypnea or a diminished respiratory rate has been noted in some forms of cerebral disease, including meningitis, in affections involving the pneumogastric nerves, in respiratory obstruction, in some forms of bronchitis, in asthma, in emphysema, and in nephritis, none of which appear to have been the cause of the lessened respiratory rate in our case.

Out of 1,438 occasions on which the respiratory rate was recorded in nine patients with advanced pulmonary tuberculosis during the last three months of life, on about two thirds the rate ranged between 25 and 34 inclusive, and only on one occasion was it below 20.

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[2] Hayhurst, Emery R.: A Satisfactory Method for Staining Blood Smears, The Journal A. M. A., April 3, 1909, lii, 1100.

The only reference to diminished respiratory rate in pulmonary tuberculosis I have been able to find after looking over a number of standard works, is one by Smith[1] in 1856. In an elaborate study of five cases of pulmonary tuberculosis he found the respiratory rate as low as 13, and speaks of the bad prognosis in cases with low respiratory pulse rates, like 1:7 or 1:8. He noticed the low rates chiefly in phthisical persons of unusual stature, as in some of the regiments of the life guards, and in the early stage. Possibly, the bradypnea in this case and the height and rapid growth may have been due to a common cause. No other cause suggests itself, the condition resembling many cases of advanced pulmonary tuberculosis.

This patient had advanced pulmonary tuberculosis and yet the bradypnea was practically always present during the last six months of life, the rate frequently being below 13 and reaching as low as 10. The respiratory-pulse ratio was low, reaching below 1:10.

MIXED TUMOR OF ADRENAL ORIGIN CONTAINING OSSEOUS TISSUE

O. W. H. MITCHELL, M.D., AND R. B. HILL
COLUMBIA, MO.

Patient, Mrs. D., aged 24, American, housewife, had four sisters and two brothers, all in good health. The family history was negative. With the exception of the usual diseases of childhood the patient had always been in good health. She had three children, the youngest was two and one-half months old.

Present Trouble.—About seven weeks before the examination the patient first noticed an enlargement in the left hypohondriac region. About three weeks later she began to have some pain in her side and back, which did not seem to be getting worse. The growth, according to the patient, had not increased in size and the only pain the patient had now was in the back.

General Examination.—A tumor mass was readily palpated in the left hypochondriac region; this extended several fingerbreadths below the free border of the ribs and to the median line in front. There was very little pain on pressure; the tumor was of hard elastic consistency; there was tympany over median border of tumor. When the patient lay on the back a distinct tympany could be percussed over the tumor. The mass extended through to the back and could be palpated from the rear and pushed forward and the entire mass seemed slightly smaller than a child's head. Distention of the colon did not help to clear up the condition. The mass was freely movable with respiration. When the patient stood it was possible to palpate between the upper pole of the tumor and the border of the ribs. Otherwise examination of the abdomen was negative. On vaginal examination the uterus was normal, anteflexed and movable. The right adnexa could be palpated and were apparently somewhat thickened.

Urine Examination.—Light straw, sp. g. 1025, alkaline reaction, no sugar, trace of albumin, microscopically, many pus cells, a few red cells and an occasional cast could be seen. Second examination, same as the first, with the exception of the presence of sugar, which could be accounted for by the fact that the patient was nursing a child.

The patient again made application for treatment four weeks later. An *x*-ray plate made at this time showed a shadow, which was taken to be a stone in the pelvis of the kidney. Since patient was last seen the tumor had increased in size until now it extended beyond the median line.

Clinical Diagnosis.—Kidney tumor, probably hydronephrosis.

Operation.—By Dr. Max W. Myer. Oblique lumbar incision, tumor and kidney exposed, attempt to trocar failed. In the delivery of the tumor mass, which was very difficult owing to size and solidity, the tumor tore and yellowish bloody contents escaped. It was necessary to resect the last rib to deliver the mass.

Postoperative History.—The patient recovered from the operation, left the hospital in two weeks. To date, six months after operation, there are no signs of return.

Pathologic Report.[1]—The specimen was a tumor mass about the size of two fists, with a thick, fibrous capsule covering it, except at the lower pole, from which yellowish pulpy material protruded. When sectioned the tumor presented difficulty because of osseous or calcareous substance in the capsule, processes of which extended quite deep into the tumor mass. The cut surface presented a variegated appearance; canary yellow areas, which were taken to be the tumor substance proper; red areas, which were thought to be due to hemorrhage; and the substance so resistant to the knife which was calcareous material or possibly true bone. The starch-iodin reaction of Crofton was positive.

Microscopic Examination of Tumor.—Pieces from various parts of the tumor were taken; those from the most resistant parts were placed in nitric acid solution before being blocked. The various slides showed many variations in the microscopic pictures. The cells were much the same, large and clear, with a very large vesicular nucleus, which took a bright, clear stain. The nuclei varied greatly in size. In some areas these cells were massed together without any particular arrangement, while in others they were to be found only in strands or cords, usually double cords of cells. In other places there was distinct tubular formation, with the tubules filled with red blood cells. Many of the lining cells of the tubules were filled with pigment in the form of very minute granules and of a yellowish-brown color. The pigment was of hematogenous origin and reacted to Pearl's iron stain. Some cells gave evidence that fat had been dissolved out of them. The blood vessels, really sinuses or capillaries, were very thin-walled. The tissue, which was placed in nitric acid solution, showed, when stained by Schmorl's method, typical osseous structure. There was definite formation of laminæ and canaliculæ, and the bone substance took a yellowish-brown stain.

Pathologic Diagnosis of Tumor.—Osteohypernephroma, or better, osteomesothelioma.

Microscopic Examination of Kidney.—The accompanying kidney, which was markedly smaller than normal, firm and quite resistant to the knife, showed on microscopic examination distended tubules, many of which contained large hyaline casts; and great increase in the interstitial connective tissue.

Pathologic Diagnosis of Kidney Condition.—Fibrocystic kidney, atrophy from pressure.

We wish to express our thanks to Dr. Myer for permission to report the case.

ASPHYXIATION FROM GASOLINE FUMES

HUGH S. WILLSON, M.D.
CRYSTAL, N. DAK.

Several cases of asphyxiation in buildings where gasoline engines were being run have come to my attention lately, and I have not come across any reports of such conditions in my limited library or in medical journals.

CASE 1.—The operator of a gasoline fire engine was working in the engine house with the engine running and all doors open. After an hour or so he felt dizzy and fell to the floor, unconscious. There was marked pallor and body was covered with cold perspiration. The breathing was slightly stertorous. The eyes were closed, the pupils slightly dilated. The pulse remained full, regular and at normal rate. The patient winced on pressure at the supraorbital notch but remained unconscious for five hours. He felt weak and had a splitting headache for a day after; also nausea and vertigo for two days after. He had been overcome once before under the same conditions but soon regained consciousness in the open air. There was no history or sign of epilepsy or other condition simulating this. Others in the building had the dizzy feeling and headache but reached the open air without help.

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[1] Edward Smith, Medico-Chirurgical Trans., published by the Royal Medical and Chirurgical Society of London, vol. 39.

[1] From the Pathological Laboratory, University of Missouri.

Case 2.—A chop-mill operator disconnected the exhaust-pipe of gasoline engine and turned it into a tank of water within the building, to heat the water. After the engine had been running for half an hour the operator became extremely dizzy and was barely able to escape to the open air.

Case 3.—A farmer placed his gasoline engine in a large barn, part of which was occupied by cattle. After running the engine for some time he noticed the stock dropping in their stalls, and was unable to get them up. He soon felt dizzy and had difficulty in reaching the open air in time to avoid unconsciousness. He had marked headache and vertigo for some time after.

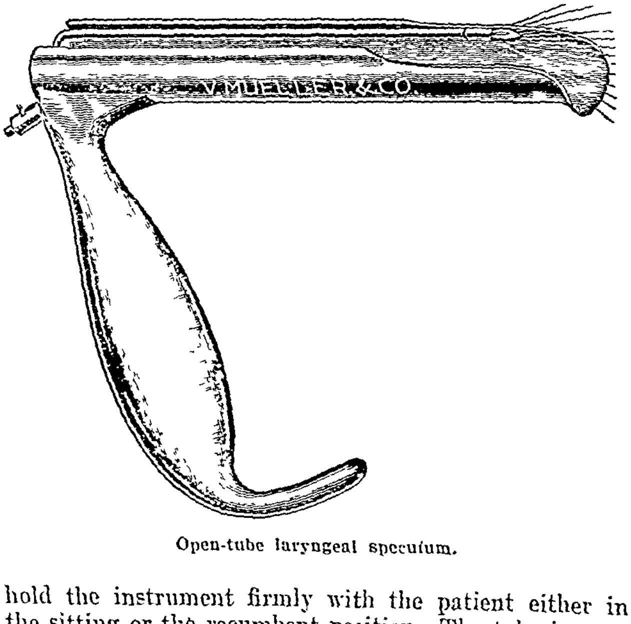
In all cases the buildings were not tightly closed. In Case 1, especially, all doors were wide open, giving very free circulation of air.

OPEN-TUBE LARYNGEAL SPECULUM

E. FLETCHER INGALS, M.D.

CHICAGO

This instrument was designed to facilitate the introduction of the bronchoscope or to be used in direct laryngoscopy either for diagnosis or operations. The handle has been placed at an acute angle to the tube, a feature which is important in enabling the operator to hold the instrument firmly with the patient either in the sitting or the recumbent position. The tube is open on one side, which permits the easy withdrawal of the instrument after the introduction of the bronchoscope, yet the opening in no way sacrifices the advantages obtained by the tubular instruments heretofore employed for similar purposes, and its use is not attended by the difficulties that have sometimes been experienced in withdrawing the slide that closes the opening in some tube specula. The light is introduced along a protecting groove so that it is out of the way in operative procedures, yet it is not liable to be dimmed by secretions that might find their way into an auxiliary tube. The instrument is made in two sizes, one 14 cm. long for children, the other 17 cm. long for adults. I have found this much more satisfactory than other instruments I have used for direct laryngoscopy or for introducing the bronchoscope. It may be employed easily when the parts have been properly anesthetized by cocain and suprarenalin. It is best to make the examination or operation when there is no food in the stomach, as the throat is then more tolerant of manipulation and vomiting is much less likely to occur.



Open-tube laryngeal speculum.

34 Washington Street.

Therapeutics

TOBACCO

In this age of the ever-increasing frequency of high blood tension, arteriosclerosis and cardiac weakness, the action of tobacco is becoming more and more a topic of importance. While it is true that the number of nonsmokers among men is increasing, it is also true that the number of men, young men, and even boys, who smoke excessively is increasing.

In investigating the exact pharmacologic action of tobacco, while we must seriously and carefully consider the scientific findings of laboratory investigators, it becomes evident that these findings do not express the whole truth of the action of tobacco on the individual addicted to its over-use.

The only active constituent of tobacco seems to be the alkaloid nicotin, and this alkaloid acts principally on the nervous and circulatory system. In concentrated form it is one of the most quickly acting poisons, and may produce death in less than a minute by causing immediate respiratory failure, the heart beating for some time after respiration ceases. In less concentrated doses the symptoms are severe nausea, vomiting and purging, with profuse salivation, sweating and a gradually failing heart and respiration.

When nicotin is injected intravenously or subcutaneously there is first a rise in the blood pressure, which is probably due to an irritant action on the blood vessel walls. This, however, is soon followed by a lowering of blood pressure, due to the disturbing influence on the heart. The action on the heart varies with different doses, and often from minute to minute. At first there seems to be decided inhibitory action, by a stimulation of the pneumogastric nerves. If the dose is sufficient to paralyze the ganglia of the pneumogastric nerves the heart becomes rapid, and soon the heart muscle itself is depressed and later paralyzed. Most of the secretions of the body are increased, especially that of the salivary and sweat glands.

Nicotin is a stimulant to peristalsis, both of the intestines and stomach. Nausea and vomiting, though partially due to excessive stomach contractions, are also doubtless due to the irritant or depressant action on the vomiting center in the medulla.

Cushny says that nicotin first stimulates and later paralyzes all of the sympathetic ganglia. If this is true of large doses, small doses taken in constantly (as by smoking) by young boys must profoundly affect growth and nutrition.

The nervous twitchings and fibrillary contractions of muscles seems to be due to an action on the central nervous system. Nicotin does not seem to be a stimulant to the higher centers of the brain, except possibly during the actual act of smoking or puffing at a cigar or pipe. The almost immediate action is a depressant and quieting one on the central nervous system; in other words, it acts as a narcotic. While large doses of nicotin will cause dilatation of the pupils, small doses (smoking frequently repeated) will cause the pupils, in the tobacco *habitué*, to be contracted.

While nicotin is mostly excreted by the kidneys, it is also largely excreted by the saliva, and probably slightly by the perspiration.

Like any other narcotic drug, a tolerance for tobacco is soon acquired, the desire for it soon develops, and the tobacco habit is easily formed.

It seems positively physiologically demonstrated that when tobacco is smoked a certain amount of nicotin is absorbed, as, whether the effect is that of acute poisoning, as in a novice, or that of chronic poisoning in the over-user of tobacco, the symptoms and disturbances are those of nicotin. The amount of nicotin that will be absorbed from each "smoke" depends on whether it is a pipe, cigar or cigarette that is smoked, and whether or not the smoke is inhaled.

What it is that causes the tobacco-smoking habit is not positively demonstrable, and perhaps the habit can not be attributed to any one particular thing. The desire for a smoke is probably a combination of the narcotic, quieting effect of the nicotin; the quieting effect of the rhythmical muscular activity of puffing; the desire for the periodic irritant stimulation of the throat, and perhaps larynx; perhaps the psychic effect of watching the curling smoke, and the human feeling of sociability in smoking with others. There seems to be no doubt that cigarette smokers who inhale have the desire intensified by the irritation of the throat, and such smokers are not satisfied with any other method of using tobacco, even if strong cigars are substituted for the weak tobacco cigarettes. Consequently, the nicotin action comprises but a portion of their intense desire, the cure of which is the hardest of the tobacco habits. It is also positively true that the smoker who inhales (and inhaling occurs far and away most frequently among cigarette smokers) is the one who absorbs the most nicotin, and is the one in most danger of chronic poisoning.

The intangible signs of chronic tobacco poisoning are in boys, impaired physical growth and impaired respiratory ability, and in older men, a slowly developing arteriosclerosis. The tangible symptoms and signs of the over-use of tobacco are excessive nervous irritability and excitability as shown by nervous twitchings, fibrillary contractions, increased nerve reflexes, sleeplessness, palpitation, cardiac pains, loss of appetite, digestive disturbances and chronic inflammation of the throat and larynx.

To begin with, the simplest of these conditions, the chronic pharyngitis, lingual tonsil irritations, lingual tonsil cough, and chronic congestion of the larynx, and laryngitis, are conditions frequently seen and generally readily cured by the withdrawal of tobacco and the proper local treatment.

Whether the loss of appetite and dyspepsia are due to the impairment of the saliva which in over-smokers is loaded with nicotin and probably other tobacco extractives, or to excessive stomach irritability, or to impaired circulation (which is generally concomitant with digestive disturbances from this cause) can not be proved, but probably all are factors in causing the impaired functioning of the stomach. In this condition it can generally be promised that if the tobacco is stopped and gentle tonic treatment given the appetite will return, the digestion will improve, and the patient will put on weight.

The most frequent disturbance for which the patient who over-uses tobacco comes to the physician is cardiac disturbance, and generally he has recognized the cause, and has attempted to stop the excessive use of tobacco. The heart is found irritable, palpitating with the least exertion, and sometimes without excuse, occasionally sharp, stinging pains referred to the cardiac region occur, the patient is breathless on slight exertion, and arrives at the top of a flight of stairs with the short, dry, catchy cough so typical of cardiac weakness. Examination of the heart often shows it slightly enlarged, and there may be a mitral systolic murmur, showing an insufficiency of the mitral valve. Such a condition of the heart from tobacco is found occasionally, while an irritable heart from tobacco is of frequent occurrence. Such a heart will generally recover entirely after the withdrawal of tobacco, with physiologic rest (as rising slowly and walking slowly, avoiding all haste, refusing to rush for cars, abstaining from severe muscular exertion) and the administration of small doses of digitalis or strophanthus. Of course during the treatment of such a heart alcohol should be entirely avoided. Entire recovery of the "tobacco heart," if the patient has no other organic lesion, should be expected in from three to six months.

When the heart is seriously affected by nicotin other symptoms are frequently in evidence, such as a small amount of tremor, exaggerated reflexes, and a tendency to cold hands and feet, with excessive sweating, especially of the hands. Such a condition of the hands and feet is particularly noticeable in young men and boys who are over-smoking, and will generally disappear on the stoppage of tobacco and the administration of ordinary doses of strychnin.

Occasionally the first notification of excessive use of tobacco is an impairment of vision. This is of rather rare occurrence, although the tendency to small, contracted pupils is of frequent occurrence. Generally the vision improves after stopping the tobacco.

Much discussion has taken place as to whether the tobacco user gets cerebral stimulation or cerebral quietude from his smoke. As the tobacco user will generally get nervous irritability and probably cerebral irritability if he suddenly stops smoking, and becomes calm and quiet as soon as he takes his smoke, it hardly seems that the nicotin could ever be a cerebral stimulant. Although the rhythmical puffing at the cigar or pipe may produce cerebral stimulation by possibly increasing the blood flow in the brain, and though there may be some cerebral stimulation from the possible slight increase in blood tension due to the act of smoking and the absorption of nicotin, still the action of tobacco as a whole must be put down as sedative and narcotic. The nervousness is quieted, the cerebral irritation becomes diminished, calmness takes its place, and the man thinks and acts calmly, logically and with less haste. This, of course, applies to the man who takes his "smoke" regularly and has not developed chronic tobacco poisoning. The circulatory and nervous depressant effects which occur when the novice smokes his first cigar can not be considered as at all symmetrical with the symptoms produced by a cigar smoked by one who has become tolerant to tobacco. The tobacco user without tobacco not only develops cerebral irritation, as shown by irritability and nervousness, but also has an increased blood pressure from this same nervous tension. In his case certainly, and probably in most instances, though the primary muscular effort of puffing at the cigar may increase the blood pressure, soon, secondarily, there is a diminished blood pressure, the irritable heart is quieted, the nervous system receives its desired narotic, and the man feels comfortable and contented. Under such conditions he certainly will do better mental work than without his cigar unless he has entirely broken himself from the habit, and his system does not need or expect the narcotic influence of tobacco.

It seems to be a mistake to have believed that the smoke in a tobacco atmosphere does not contain nicotin, because if patients, who show signs of the over-use of tobacco and who have diminished or even stopped its use, remain for several hours in a room filled with tobacco smoke, or ride for hours in smoking cars, they will again show signs of nicotin poisoning. In other words, a man may smoke one or two cigars a day in the open air or in his own home with impunity, but the same amount of tobacco smoked in smoking cars will often produce symptoms of poisoning.

It has not been seriously enough considered that an habitual tobacco user, who has developed an acute sickness or has been subjected to an operation, during convalescence may suffer from nervous symptoms and circulatory phenomena that are due to the withdrawal of his habitual narotic. It can not be stated offhand that even so simple a narotic as tobacco can suddenly be withheld from a system that is undergoing other serious strain without causing serious symptoms. If a heart has become used to the quieting effects of nicotin on its nervous mechanism, and if some of the vital brain centers, especially in the medulla, have become used to this same narcotic, it is probable that serious symptoms may be prevented and a quieted nervous system and better heart action be produced by allowing such a patient to have a more or less frequent "smoke," depending on his previous habit. It is also possible, as so well recognized in the users of opium or morphin, that tobacco to these *habitués,* while not a stimulant to mental activity or causing a patient to be mentally more acute, may still be a positive stimulant to the vital brain centers.

A positive demonstration of such need for tobacco in the convalescence of sickness is well shown by several cases reported by Dr. L. Bolton Bangs, New York, in the *Medical Record,* March 14, 1908.

To draw a moral from the above would be to urge the prohibition of the sale of cigarettes to young growing boys; for physicians to discountenance positively preparatory schools that allow the youth of America to develop or continue the cigarette habit; to teach older boys and young men the physiologic disability that large, and certainly excessive, amounts of tobacco can produce; and to urge, after the young man has acquired his growth, such use of tobacco, if he desires to use it at all, as will be less than enough to cause any of the well-known symptoms, which the man himself can be taught to recognize as these symptoms of over-use of tobacco. The amount that each individual should or may smoke is an entirely individual problem. There is not and never can be a rule as to how much is excessive. One cigar a day may be as serious for one man as are six cigars a day for another.

It is impossible to state how frequently deaths are caused by the over-use of tobacco. Certain it is that not infrequently young boys and young men, generally cigarette users, get into such mental conditions as to become irresponsible criminally, mentally worthless, and even insane. It certainly seems recognizable that serious heart weakness occurs frequently in acute disease, or after operations, in those who use tobacco excessively. Certainly great care should be exercised to use no drug that will cause cardiac depression in such patients and their hearts should be more carefully watched than the heart of an individual who does not smoke. It is quite possible that even during the acute processes a chronic tobacco user should be allowed an occasional short "smoke."

In breaking off from the tobacco habit the question is, shall the patient stop abruptly or gradually? This is best determined by the man, who knows which is the best method for himself. Sometimes bromids help to diminish the restlessness and nervousness, sometimes strychnin is needed, and generally laxatives are indicated. Plenty of fresh out-door air will generally aid such patients in ridding themselves of the habit.

New and Nonofficial Remedies

Since the publication of the book "New and Nonofficial Remedies, 1909," the following articles have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association. Their acceptance has been based largely on evidence supplied by the manufacturer or his agent and in part on investigation made by or under the direction of the Council. Criticisms and corrections to aid in the revision of the matter before publication in the book are asked for.

The Council desires physicians to understand that the acceptance of an article does not necessarily mean a recommendation, but that so far as known it complies with the rules adopted by the Council.

W. A. Puckner, Secretary.

(*Continued from page 1407*)

BARIUM CHLORIDE—Barii Chloridum.—Baryum Chloratum (Pharm. Germ. edit. 4; Pharm. Helv. edit. 4). Barium Chloride ($BaCl_2,2H_2O$) is the barium salt of hydrochloric acid.

Barium chloride occurs as colorless trimetric plates or glistening scales, odorless, non-efflorescent and having an unpleasant, bitter, sharp, saline taste. It dissolves in 2.5 parts cold and in 1.5 parts boiling water, forming a neutral solution; but is insoluble in alcohol. Barium chloride becomes anhydrous when dried at 120° C. (248° F.)

An aqueous solution of the salt yields, with diluted sulphuric acid, a heavy white precipitate, insoluble in strong acids, and with silver nitrate a curdy, white precipitate, insoluble in nitric acid but readily soluble in ammonia water. Diluted alcohol, after remaining in contact with the salt for several hours, should, on ignition, give a pure yellowish-green flame free from red (absence of traces of strontium). An aqueous solution of barium chloride should not be precipitated by ammonium sulphide nor should any residue remain after adding excess of diluted sulphuric acid to the solution, filtering, and evaporating to dryness. Twenty Cc. of the aqueous solution (1 to 20) must not turn blue on the addition of 0.5 Cc. of potassium ferrocyanide T. S.

Action and Uses—Barium chloride is a toxic substance, its most striking effects being exerted upon muscle tissue, especially unstriped and heart muscle, and in large dose upon the spinal cord and medulla. By actively stimulating peristalsis, through action on the muscle wall, and by its direct irritant action, it readily produces vomiting and purging. It strengthens the cardiac contraction by direct action on the heart muscle, and by this means and still more by direct action on the vessel walls it greatly increases blood pressure, acting like digitalis. It acts on the muscles like veratrin. It first greatly excites and then paralyzes the spinal cord and medulla. Given in very dilute solution, absorption is small and the barium is deposited in the bones. Injected intravenously it causes tonic and clonic spasms, because of stimulation of the spinal cord and medulla.

In fatal doses it causes hemorrhages in stomach, intestines and kidneys.

Its clinical use has had but little success, chiefly because of gastrointestinal irritation and high toxicity. It has, however, been used in cardiac disease with insufficient blood pressure, as a general "tonic," and with less reason in tremors, in scleroses of the central nervous system, internally and locally in varicose veins, etc.

In poisoning the most direct antidote against the portion remaining in the gastrointestinal tract is sodium sulphate, *which produces insoluble barium sulphate.*

Its use is attended with considerable *danger.*

Dosage.—0.006 to 0.003 Gm. (1/10 to ½ grain) or 2 to 4 Cc. (30 to 60 *minims*) of a 1 per cent. solution (5 grains to the fluidounce). *Fatal*. 0.80 to 0.90 Gm. (13-15 grains). It should always be well diluted before giving.

Internally used in syphilis, scrofula and tremor albus in doses of 0.03-0.10 Gm. (½ to 1½ grains) 3 to 4 times per day; for heart disturbances 0.2-0.4 Gm. (3 to 6 grains) per day. Maximum dose per day 0.6 Gm. (9 grains). Externally employed as an eye-wash in scrofulous eye affections in 10 per cent. solution.

DIGITALIS PREPARATIONS

The chemistry of digitalis is very imperfectly understood, but several principles have been *isolated in a greater or less* degree of purity. These include digitalin, *digitalein, digitoxin,* digitonin and digitin. The term digitalin, unfortunately, is applied in a loose way to all of these principles, and in a *more restricted sense to indicate digitalinum verum,* or true digitalin, which is probably a definite substance.

Digitalinum purum, or German digitalin, is a mixture of several glucosides, consisting of 50-60 per cent. of digitonin and only 5-6 per cent. of true digitalin. German digitalin is the preparation usually found on the market and is ordinarily dispensed when "digitalin" is prescribed.

French Digitalin, or *Homolle's digitalin, is also a mixture* of several glucosides, but consists *mainly* of true digitalin.

Merck's crystallized digitalin is neither digitalin nor digitoxin, but digitonin or *digitin,* Merck using the three terms, *crystallized digitalin,* digitonin and *digitin* as synonyms.

Digitaline crystallisée of Nativelle is not digitalin, but is nearly identical with digitoxin.

It must be remembered, therefore, that Merck's "crystallized" digitalin, Merck's "pure" digitalin and the "true" digitalin of Boehringer and Sons, which naturally might be supposed to be identical, are *different in their action.*

DIGITALIN, TRUE—*Digitalinum verum Kiliani.*—Schmiedeberg's digitalin. A glucoside, $C_{35}H_{56}O_{14}$, found in the seeds and leaves of digitalis purpurea and derived commercially from German digitalin.

To a solution of one part German digitalin in four parts of 95 per cent. alcohol, five parts of ether by weight (Sp. Gr. 0.720) are added and the mixture allowed to stand in a closed vessel for twenty-four hours. In the clear supernatant solution the quantity of dissolved substance is estimated and the whole then subjected to vacuum distillation until its weight becomes 1.6 times that of the total dissolved substance. To this concentrated solution water, in an amount 2.4 times the weight of dissolved substance, is added, forming a solution containing approximately 20 *per cent. alcohol,* from which crude digitalin gradually separates on standing. The crude product is washed first with 10 per cent. *alcohol and* then with water and finally dried at a moderate temperature. Further purification is effected by boiling the alcoholic solution with *animal charcoal.* (Kiliani's method. Hager's Handb. der Pharm. Praxis, Vol. I, p. 1030.)

Digitalin occurs *as a* white amorphous powder, or in characteristic, granular masses. It melts at 217° C. (412.6° F.) and becomes yellow. It is soluble in *1,000 parts of water and* in 100 parts of 50 per cent. alcohol at the ordinary temperature; easily soluble in strong hot alcohol, but *nearly insoluble* in ether and chloroform. Digitalin dissolved in alcohol and *treated* with very dilute acid and heat yields digitaligenin *and two sugars.*

With concentrated sulphuric acid digitalin forms a golden yellow solution which on the addition of *potassium* hypobromite solution changes to a magnificent rose red or violet red.

If a little digitalin is dissolved *in* 3 to 4 Cc. *of glacial acetic acid* to which a trace of ferric chloride solution has been added and the mixture carefully underlaid with concentrated *sulphuric* acid (Keller's *reaction*) a deep carmine red band appears; the lower layer of the acetate acid is light yellow changing to brownish. (*Difference from* digitoxin.)

Sulphuric acid containing a little ferric sulphate gives with a little digitalin at first an intense golden yellow color, and then a red solution; this color rapidly changes to a beautiful and permanent violet. If too much digitalin is used the red color remains and only the surface layer becomes violet.

On heating on platinum foil digitalin should burn without leaving a weighable residue.

If a granule of *digitalin* is covered with 2 Cc. of 10 per cent. potassium hydroxide solution no color should develop within one minute (absence of other glucosides).

If digitalin is stirred to a thin paste with water *and* for every 100 parts of water used 22 parts of amyl alcohol is added with shaking, and the mixture set aside in a closed vessel for 24 hours, the presence of digitonin will be indicated by the formation of distinct masses of crystals.

Action and Uses.—The same as those of digitalis. *Its cumulative* action is probably not so great as that of digitoxin.

Dosage.—It is impossible at present to state the correct dose for digitalinum verum Kiliani. Some authorities give the same dose as that for digitoxin, whereas others give it as much larger. It is best given in pills made by trituration with *sugar of milk and massing* with glucose. Solutions of digitalin rapidly lose their strength and should *be freshly prepared.*

DIGITALIN, "FRENCH."—Homolle's Digitalin. Digitaline Amorphe. Digitalin Chloroformique. A mixture obtained from Digitalis *purpurea by the method* of Homolle, consisting mainly of digitalinum verum, Kiliani.

100 Gm. powdered digitalis leaves are moistened with one liter of water and *slowly* exhausted in a percolator until the percolate amounts to three liters. This is precipitated with 250 parts of lead acetate and the filtrate from the precipitate treated with 40 parts of crystallized sodium carbonate and 20 parts of sodium ammonium phosphate, in order to remove the excess of lead. The filtrate is precipitated with 40 parts of tannic acid. The tannate is *mixed* with 25 parts of powdered litharge and 50 parts of purified animal charcoal and dried. From the dried mass the digitalis bodies are extracted with 90 per cent. alcohol, the latter is distilled off and the residue washed with distilled water and again taken up in 90 per cent. alcohol. This is again distilled and the residue *exhausted* with *chloroform.* On expelling the latter the digitalin remains behind (Hager's Pharm. Praxis, Vol. I, p. 1035).

French digitalin is a yellowish-white, amorphous powder of a peculiar aromatic odor and bitter taste. It is neutral to litmus, almost insoluble in water, *soluble in alcohol and chloroform* and insoluble in ether. It *softens* at 90° C. and begins to melt at 100° C. It is not precipitated by solutions of lead salts; but with tannic acid, it *forms a tannate insoluble* in water. It is colored emerald green by concentrated sulphuric acid.

Concentrated sulphuric acid dissolves digitalin French, producing a yellow color, which finally goes over to an emerald-green color.

Action and Uses.—Action like that of digitoxin. Uses the same as those of digitalis.

Dosage.—What has been said with regard to the dose of digitalinum verum, applies to the French digitalin; the dose is variously given as 0.00025-0.002 Gm. (1/250 to 1/35 grain). Maximum daily dose 0.006 Gm. (1/10 grain). It must be used with caution and its action carefully watched.

DIGITALIN, GERMAN—*Digitalinum Germanicum.*—A mixture of glucosides obtained from digitalis seeds according to the process of Walz, and consisting largely of digitonin, with digitalin verum and other glucosides.

Digitalis seeds are *extracted* with *alcohol,* the alcohol *driven* off, the extract diluted with water and purified by precipitation with lead acetate. *The filtrate is freed from lead by sodium* phosphate. From the liquid thus purified the digitalis bodies are precipitated with tannic acid, the tannate *well washed with* water and decomposed with lead or zinc acetate. The digitalin thus separated is taken up in *alcohol, the latter carefully distilled off and the residue washed with ether as long as it takes* up anything. The digitalin purified in this way *is dried at a* low temperature and finally powdered. (Hager's Handbuch der Pharm. Praxis, 1903, Vol. I, p. 1032.)

German digitalin is a yellowish-white, amorphous powder, soluble in water and alcohol, insoluble in ether and *chloroform.* It is said to contain about 50-60 per cent. of digitonin and 5-6 per cent. of digitalinum verum and the rest of digitalein and other glucosides.

Sulphuric acid containing a trace of ferric sulphate produces with digitalin, German, an intense golden-yellow coloration, changing to red and finally to a permanent reddish-violet.

Action and Uses.—Similar *to those of* digitalis.

Dosage.—0.001 to 0.002 Gm. (1/60 to 1/30 grain). Maximum dose 0.004 Gm. (1/16 grain); maximum per day, 0.02 Gm. (⅓ grain).

As *German* digitalin (so-called digitalinum purum) is a mixture of very powerful active principles, the proportion of which *may vary* with changes in the manipulations, *it is* very *important* that the directions for its preparation should be very carefully followed, and caution should be exercised to purchase only such products as the manufacturers can *guarantee to have been made* with *the necessary* care.

DIGITONIN.[1]—A glucoside $C_{27}H_{46}O_{14}+5H_2O$ derived from the seeds of digitalis purpurea and belonging to the saponins.

Digitonin is separated from German digitalinum purum by the addition of ether to the alcoholic solution (see *digitalin*). The precipitate is dissolved in 10 parts of 85 per cent. alcohol and the solution put into water at 45° C. After standing from six to eight hours the greater part of the digitonin will crystallize out.

Digitonin crystallizes in colorless needles or thick warty masses which dissolve in 600 parts of *cold* water and 50 parts of warm water to a turbid solution, but dissolves to a clear solution in 50 parts of 50 per cent. alcohol. *Its solutions* are levorotatory. When heated in alcoholic solution with hydrochloric acid it is split into *dextrose, galactose* and digitogenin.

Concentrated sulphuric acid dissolves it with a red color which is intensified by the addition of a drop of *bromine* water.

Concentrated hydrochloric acid dissolves digitonin without color, but the solutions become yellow and *finally* reddish violet *on heating or on long* standing.

Keller's reaction gives a rose red zone which *soon fades.*

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[1] Crystallized digitalin—Merck.

Action and Uses.—Digitonin acts as a heart depressant when introduced into the circulation, but it is not absorbed from the alimentary canal, and therefore exerts no action on the circulation when taken by the mouth, but it renders digitoxin more soluble whether in infusion or when the leaf is taken by the mouth.

DIGITOXIN—Digitoxinum.—Digitoxinum (Pharm. Helv. edit. 4). Digitaline Crystallisée (Pharm. Française, 1908). Digitoxin, $C_{34}H_{54}O_{11}$ is the chief active principle of digitalis, having the character of a glucoside.

The leaves of Digitalis purpurea having been extracted with water and dried are extracted with 50 per cent. alcohol. This solution is treated with lead acetate, forming a precipitate, which is allowed to settle. The supernatant liquid is decanted. The remaining alcohol is evaporated *in vacuo* and the residue repeatedly extracted with ether. The ether extract is then shaken out with water and concentrated by distillation and the residue recrystallized from hot alcohol (85 per cent.) and decolorized by boiling with animal charcoal (Schmidt's Pharm. Chemie, 3d. edit., Vol. II, p. 1640).

Depending on the solvent from which it is crystallized, it is either hydrated or anhydrous. The hydrated form is obtained when crystallized from alcohol and the anhydrous from chloroform and alcohol mixture, forming colorless rectangular leaflets melting at 243° C. (470° F.) (Pharm. Française, 1908). The anhydrous preparation is official in the Pharm. Française, 1908.

It is insoluble in water, benzin or carbon disulphide, slightly soluble in ether and easily soluble in chloroform. At 15° C. it is soluble in 79.80 parts of absolute alcohol and in 43.04 parts of 90 per cent. alcohol. It is slightly soluble in fatty oils (Pharm. Française, 1908).

Digitoxin dissolved in 2 Cc. glacial acetic acid containing a trace of ferric chloride when poured onto 2 Cc. of concentrated sulphuric acid containing a trace of ferric chloride, will produce a brown color at the zone of contact of the two solutions. This color gradually changes to green and finally an indigo blue; after one-half hour the entire acetic acid layer will become blue. (Pharm. Française, 1908).

It dissolves to a colorless solution in cold concentrated hydrochloric acid, but when this solution is heated on the water bath for some time a green color is obtained. Concentrated sulphuric acid dissolves it, producing a green color.

It should not lose weight appreciably when heated to 100° C. It should be insoluble in water and in benzin, but completely soluble in chloroform. It should leave no residue when ignited (Pharm. Française, 1908).

Action and Uses.—Digitoxin acts much like digitalis. Its activity varies with the method of preparation. Digitoxin from an unknown source should be tested on animals before it is used on patients. Owing to its slow excretion, it is cumulative in action when too frequently repeated. Locally it is very irritant, and when given by mouth is liable to derange the digestion. Penzoldt claims that gastric irritation may be avoided by giving it only when the stomach is full. Owing to its irritant action it is not suitable for hypodermic injection.

Dosage.—Single dose 0.00025 (1/250 grain); maximum daily dose 0.0010 Gm. (1/67 grain). It should be given largely diluted and repeated cautiously.

Antidotes: Emetics, tannin, nitroglycerin, morphine, alcoholic stimulants or camphor.

GELSEMINE HYDROCHLORIDE—Gelseminae Hydrochloridum.—The hydrochloride of an alkaloid, $C_{24}H_{28}N_2O_4$, HCl (Gerrard) ($C_{22}H_{26}N_2O_2$ by Spiegel, Ber. d. deut. Chem. Ges. vol. 26, p. 1054) derived from Gelsemium (Gelsemium sempervirens (L) Ait. f. Fam. Loganiaceæ).

Gelsemine hydrochloride occurs in prismatic crystals or a white crystalline powder. Soluble in water, but difficultly soluble in alcohol.

With concentrated sulphuric acid it gives a yellowish, and with concentrated nitric acid a green coloration. If potassium dichromate is introduced into a solution of gelsemine in strong sulphuric acid a cherry red coloration shading into violet which soon becomes green is produced at the point of contact.

Action and Uses.—Pure gelsemine appears to have a very slight toxic action, increasing reflex action in frogs, to some extent, its action resembling strychnine. The effects of the commercial preparations are thought to be due to the gelseminine which they contain in varying quantities.

It has been used in neuralgia, especially trigeminal.

Dosage.—0.0005 to 0.002 Gm. (1/134 to 1/33 *grain*).

NOTE.—Gelseminine is a very poisonous alkaloid, found in gelsemium, which has an action very similar to that of coniine but is more depressant to the central nervous system, and must be carefully distinguished from gelsemine. Gelseminine is a mydriatic but is seldom used as such owing to its irritating action. Merck's "gelseminin" appears to consist of gelsemine and not gelseminine.

Gelsemine (Gerrard) is, according to Cushny (Proc. Am. Ph. Assn., Vol. 41, p. 830), the *same as* the German "crystallized gelsemine."

SANGUINARINE NITRATE—Sanguinarinae nitras.—The nitrate ($C_{20}H_{15}NO_4.HNO_3$) of the alkaloid sanguinarine, obtained from sanguinaria canadensis and other plants.

Sanguinarine nitrate occurs in orange-yellow crystalline needles or deep-orange colored powder. It is soluble in water and in alcohol.

Action and Uses.—Sanguinarine is a violent poison producing in mammals vomiting, purging, convulsions with loss of reflex activity and cardiac depression. The blood pressure is said to be raised by small doses.

The principal use of sanguinarine nitrate is as a stimulant expectorant in chronic bronchitis and in the later stages of acute bronchitis. It is said to be an emmenagogue and used in functional amenorrhea.

Dosage.—0.004 to 0.06 Gm. (1/16 to 1 grain); as an expectorant 0.004 to 0.008 Gm. (1/16 to 1/8 grain); as an emetic 0.015 to 0.06 gm (1/4 to 1 grain); average dose 0.015 Gm. (1/4 grain) to be given with caution.

STROPHANTHIN THOMS. — A crystalline glucoside ($C_{30}H_{46}O_{12} + 9H_2O$), obtained from Strophanthus gratus. It is identical with the ouabain obtained from Ouabaio wood by Arnaud (the official strophanthin is methyl-oubain ($C_{31}H_{48}O_{12}$).).

The light-brown dehaired seeds of strophanthus gratus are cold pressed to free from oil. The oil free cakes thus formed are broken up and extracted with 96 per cent. alcohol. The alcohol is distilled off on the water bath, leaving a residue, which is described as follows: It consists of several layers—an upper thin layer of oil, then an aqueous alcohol layer, followed by a yellowish brown mass of crystals, under which is a layer of a brown extract, from which an amorphous strophanthin can be isolated. The above mentioned crystals are freed from the mother liquor and recrystallized from hot water. The seeds yield about 3.62 per cent. of crystallized strophanthin.

Colorless quadratic crystals of bitter taste and easily soluble in hot water. Soluble in 100 parts of cold water and 30 parts cold absolute alcohol and 30 parts amyl alcohol. It is slightly soluble in acetic ether, ether and chloroform. Its solubilities require further study. Solutions of 1 part of crystallized strophanthin in 100 parts of 95 per cent. alcohol have been frequently observed to deposit crystals on standing.

A solution of 0.01 gm. in 1 Cc. water run onto a layer of concentrated sulphuric acid colors the latter pink to red and the aqueous layer is colored a dirty green color.

Heated to 105° C., it loses 20 per cent. of water. The strophanthin thus dried melts at 187-188° C. Upon ignition no weighable residue should remain.

Heating with dilute hydrochloric acid or sulphuric acid produces hydrolytic cleavage, yielding a body which is identical with rhamnose.

Action and Uses.—Its pharmacologic action is probably qualitatively identical with that of the official strophanthus or strophanthin, but the crystallized is more than twice as active as the official strophanthin when injected subcutaneously or intravenously. The action of crystallized strophanthin appears to be identical with that of the purest preparation of strophanthin from Strophanthus Kombe; this action develops more rapidly, the drug is more quickly excreted, and shows less tendency to cumulative action than in the case of digitalis.

Strophanthin Thoms is used in place of strophanthus as a substitute for digitalis.

Dosage.—It is recommended in doses of 5 minims of a 1 per cent. solution by the mouth, gradually increased by 1 minim until the desired effect is obtained, which seldom requires more than ten minims (or about one-tenth of a grain of strophanthin). (H. Schedel, Arbeit a. d. Pharm. Inst. d. Universität, Berlin, II, 1904, p. 97). Single dose by mouth, 0.003 to 0.025 Gm. (1/20 to 2/5 grain); daily dose, up to 0.03 Gm. (1/2 grain). The larger doses are probably not absolutely safe. Intramuscularly or intravenously: The correct dose has not been accurately determined, but it appears to be one-half milligram (1/130 grain) or less for a single dose, and only one such dose should be given in a day as a rule. For intramuscular injection it should be dissolved in about 4,000 parts of distilled water, and even in that dilution it occasions some pain. The intramuscular injection should be repeated only by the physician himself.

AMYL VALERATE — Amylis valerias.—Amyl valerate, $CH_3.CH(CH_3).CH_2.COO(CH_2.CH(CH_3).CH_2.CH_2) = C_{10}H_{20}O_2$, is the iso-amyl ester of iso-valeric acid.

Amyl valerate is obtained by separating (by distillation) the ester which is formed when valeric acid or sodium valerate is added to a mixture of iso-amyl alcohol and sulphuric acid and the distillate obtained, washed, dried and redistilled.

Amyl valerate is a colorless liquid, having when dilute an odor of apples. It is insoluble in water, soluble in alcohol, ether and chloroform. It boils at 188-190° C. (370.4-374° F). Its specific gravity is .858 at 15° C.

Action and Uses.—Amyl valerate has been employed in the treatment of gallstone colic, as a sedative and to dissolve cholesterin. Its employment in renal colic is not satisfactory.

Dosage.—To relieve biliary colic, 0.2 to 0.04 Cc. (3 to 6 minims) in capsules every half hour; or 1 Cc. (15 *minims*) in capsules, three times daily.

(*To be continued*)

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[*For other information see second page following reading matter*]

SATURDAY, MAY 8, 1909

THE PHYSICIAN AND COLLEGE ATHLETICS

The sanest thing that has been said about college athletics in recent years occurs in a lecture recently delivered by Dr. Edward H. Nichols, medical supervisor of the Harvard athletic teams. The following paragraphs which, as they are reported within quotation marks in the Boston *Herald*, of Monday, April 19, would seem to be authentic, represent conclusions of his medical experience and careful weighing of the situation. He said, in part: "I believe that competitive athletics develop courage, tenacity, a sense of fair play, coordination, self-sacrifice, the control of men, business principles and power, and these to a very high degree in many cases, and that the good far outweighs the detrimental publicity, extravagance, physical energy and excessive work, the evils of the coaching system and the distortion of values. Especially is this so since the evils seem to me controllable, the extravagance by removal of the money which makes it possible, the excessive work and energy by adequate medical supervision, the coaching evils by abolition of the system, and distortion of relative values by changes in the points of view of parents and by increased requirement of work by faculties."

In this, Dr. Nichols points out exactly the evils that everyone who has studied the subject seriously appreciates must be reformed and best of all he indicates the ways and means for the reformation. If athletics are to continue in our universities this reformation must come soon or there will be a revulsion of feeling that may turn us aside from the present movement toward open air life which has many benefits for mankind in its train. Most of the evils center around the professional coaching system. It is through the professional coach that young men are tempted to overdo their strength in athletics and it is his influence that makes a business of the college sport and brings in its attendant train the extremely undesirable publicity, the temptations to extravagance and to betting evils of various kinds which no one who knows anything about the situation can ignore. Athletics must become once more sport and then they will cease to be a detriment to health, an injury to studies, and an unfortunate factor in college social life. To have this pointed out so clearly by a member of the profession is a source of pride, and his opinion may well help the medical profession of the country to appreciate just where the evils of college athletics lie so that there may be cooperation throughout the country in efforts for their eradication.

This message comes opportunely, for we are just entering on another six months of university life when the air will be full of college athletics from baseball through rowing to football. In each of these sports the evils spoken of can be seen clearly and the abuses which they engender are a serious detriment to the benefits that might reasonably be expected from college athletics. Now is the time, therefore, to insist on the reformation of these abuses which have been growing ever greater and greater in recent years and show no sign of amelioration. Evidently there is need of definite teaching of the public in this matter and no class of men is better situated than physicians and none will command attention so readily on a subject that is of so much importance for the health and the character of the rising generation.

THE PATHOLOGIST AND THE CLINICIAN

We hear many complaints nowadays concerning the superseding of the trained judgment and clinical experience of the practitioner by the laboratory investigations of the pathologist. It is asserted that, with an overweening arrogance, the man who is supposed to represent "scientific medicine" to-day is prepared with his test tubes, his reagents, and his microscope to settle offhand those matters of difficult diagnosis that a little while ago were the peculiar prerogative of the trained clinician.

In *Northwest Medicine* for April, Dr. Griswold turns the tables by a counter attack. He complains that with a yearly widening and increasingly important field, but little opportunity is afforded the pathologist to do justice to his side of the healing art. He is rarely called in consultation, even in hospitals with a pathologist on the staff. "He is everywhere excluded," says Dr. Griswold, "from gaining practical knowledge, and then his work is criticised as impractical. His reports are taken by the practitioner and used in determining a diagnosis, without his being present to interpret the results of his work and give them due importance in the case. He seems everywhere to be considered the agent, never the peer, of the practitioner."

Animal experimentation is the sole field, Griswold continues, that the pathologist is allowed freely to cultivate. His study of gross pathology is based only on such specimens as the clinician may see fit to send him after they have been thoroughly changed by time and mauled with handling; hardly ever, while they are part of the living body. In other words, instead of the clinician becoming more and more at the mercy of the pathologist, it is the pathologist who is entirely at the mercy of the clinician. He suggests that if pathologists were given a place as consultants, many men of ability throughout the country would be willing to take up the work. He criticises those laboratories that advertise to do work at ridiculously small prices, *e. g.*, an examination of smears and sputum for $1.00. "One might do well," he says, "examining sputum for men who do not suspect tuberculosis until the disease has advanced to a stage that makes searching for bacilli unnecessary, because in a smear they will be so thick on the slide that every field will contain them; but if doing work for competent practitioners, this fee would mean starvation."

The satisfying part of this disputation lies in the evidence it affords that both sides are realizing the necessity for the same thing, namely, that their work should be cooperative and not mere piece-work. Each should at least know enough of that side of the joint labor in which the other is an expert to enable him to comprehend the united whole with a due sense of proportion.

TYPHOID BACILLUS CARRIERS; THEIR IMPORTANCE AND MANAGEMENT

The fact that persons who have suffered from typhoid fever, and even those who have never had an attack of illness clinically recognizable as this disease, may carry typhoid bacilli in their excreta for years, has been widely recognized only recently. Like all new discoveries, there has been a tendency to overestimate its importance, but it seems fairly certain from recent German work that at least 5 per cent. of typhoid patients become bacillus carriers. This means that the percentage of bacillus carriers among those who have not had typhoid fever is much smaller than this. Nevertheless even this apparently small percentage of bacillus carriers must mean a great many infectious individuals in a country where typhoid fever is as prevalent as in the United States. The view that seemed to gain ground for a while, that except in widespread outbreaks the majority of cases were due to bacillus carriers will, we think, have to be abandoned. The danger from bacillus carriers is not so great as it might seem at first sight, for it is necessary that conditions be favorable for transmission of the bacteria from the carrier to other people, and very often such conditions are not present. Perhaps it is only occasionally that the bacillus carrier is in a situation which enables him or her to infect any large number of healthy individuals. The danger from bacillus carriers therefore, while it has no doubt been overestimated in some respects, is still a very important problem.

Just what the percentage of bacillus carriers in the United States amounts to we do not know. No such widespread research regarding this subject as has been carried on in Germany has yet been attempted here to our knowledge. Presumably, the percentage will be the same. If there ever comes a time when it becomes customary with us to investigate every patient with typhoid fever as to infectivity, as we now do with diphtheria patients, we shall have to decide what is to be done with bacillus carriers. It is obvious that the isolation of 5 per cent. of all individuals who have had typhoid fever is a practical impossibility. It might seem theoretically feasible to form colonies of bacillus carriers as we now do of epileptics, but this is purely utopian, and the public would not stand for the interference with personal liberty and the breaking up of families which would result from this method. Educating the bacillus carriers in strict cleanliness, and impressing on them their danger to their fellow men would not, we think, produce any far-reaching result. Even among the intelligent and naturally cleanly the constant care and watchfulness required would soon become extremely irksome, and the precautions would no doubt lapse. Among the ignorant and dirty, and many carriers belong to this class, education of this sort would avail but little. The effect of frequent and active purgation seems to be almost nil, the bacilli remaining as before. The use of so-called intestinal antiseptics in these cases has been given a good trial by the Germans with practically no result. Attempts at active immunization of the bacillus carriers also seem to have been futile, as perhaps might have been expected, especially in those carriers who had had a definite attack of typhoid which itself no doubt conferred immunity. The conception of Forster that the gall bladder is the site of constant production of typhoid bacilli in these cases has been widely accepted, and makes still more clear the futility of attempting elimination by purgation or intestinal antisepsis. It has led to the suggestion that extirpation of the gall bladder should be practiced on bacillus carriers. This, it seems to us, is almost as utopian as segregation. At present, we have no laws which would permit the forcible incarceration of certain individuals and the removal of their gall bladders; and if we could pass such laws it would be doubtful whether we should be justified in performing so dangerous a major operation on all bacillus carriers. Furthermore, the latest observations carried on by Koch and his pupils seem to show that in bacillus carriers not only the gall bladder, but also the smaller bile passages are infected.

Recent observations of Liefmann[1] indicate that there is one method which may prove to be of value in ridding typhoid bacillus carriers of their undesirable messmates, and this is by changing the intestinal flora, and introducing bacteria inimical to the typhoid bacilli. It is possible that here we have the solution of the problem, not only in typhoid bacillus carriers, but also in cholera and dysentery bacillus carriers. The observations of Liefmann are not extensive enough to place the method on a firm basis however, and further observation is needed.

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[1] Münchener med. Wchnschr., Mar. 9, 1909.

BETTERMENT OF STATE CHARITIES

Probably one of the most important bills for the betterment of state charities is the Illinois Senate Bill 448, which has been prepared, reported out, and recommended by the Illinois Senate Committee on Charitable, Penal and Reformatory Institutions.

In the first place, it is noteworthy that a senate committee, composed of members of both political parties and sufficiently numerous to furnish every variety of opinion, should have evolved a measure that could be endorsed without a single adverse vote in committee.

Its mode of construction is also noteworthy. It is a composite bill, its provisions comprising the best features of three separate bills of different but allied purport, presented by three different senators. The bill itself aims at that all-important point in efficient economic legislation, the removal of the state charities entirely from the baleful influence of politics. This it effects by placing the control of such charities under a board of administration consisting of five men, each an expert in one of the different fields that the board will have to cover in the performance of its administrative duties. By providing an adequate salary, in return for the devotion of their whole time and residence at the center of administration of the members of the board, it is possible to attract thoroughly competent men for the positions; and by making the tenure of office permanent, subject only to removal for definite cause—which would necessarily amount to a charge of either incapacity or misconduct—it minimizes the temptations to graft; for, unfortunately, until human nature shall be reconstituted, one of the inevitable effects of the short-service official system will be the desire to "make hay while the sun shines," leading the official ever farther and farther on the path of dishonesty and disregard of public interests.

The principal noteworthy points in the bill itself are: the extension of the civil service system; the continuation and expansion of the present admirable hospital system; the provision of a system of business administration, tending toward a combination of maximum efficiency with minimum waste; an application of the principle of the separation of slight offenders from hardened criminals and of juvenile offenders from all others —which is a recognition of the fact that, if our penal system does not reform criminals, at least it ought not to be allowed to manufacture them; an extension of supervision over boarded-out children—an admirable state charity, or, rather, state insurance system, which has been developed to the fullest extent with the greatest possible advantage in New South Wales,[1] and, finally, the provision of an extra check against all leakage, both in efficiency and in expense, by a local non-salaried commission on charities and corrections assigned to each state charitable, penal and correctional institution.

The only danger to this measure, recommended, as it is, by the unanimous vote of the senate committee, lies in the probability of factional opposition by such members of the general assembly as may place private considerations before public interest. Now, therefore, is the time for the physicians of Illinois to wield their personal influence individually on their respective representatives. If each physician will at once write to his representative urging the passage of this bill as it stands, without any emasculation, and will at the same time exercise his missionary influence among his patients to educate public intelligence on the importance of such matters, an object-lesson in the advantages of organized medicine will be given, the effect of which will reach throughout the entire country.

THE COMING PHARMACOPEIA CONVENTION

As the time approaches for the Pharmacopeia convention, an effort is being made to perfect the list of bodies entitled to send delegates. A circular letter from the Board of Trustees of the United States Pharmacopeial Convention is published in another column, in order to call attention to the qualifications and to emphasize the importance of the selection of delegates as early as possible by all bodies which can qualify. The work of this convention is one of immense importance to the medical profession, and requires men of broad experience and good judgment. The medical societies have an opportunity to show their interest not only by electing the best possible representatives, but also by discussing some of the many points that must be brought up, and perhaps by giving definite instructions to their representatives. There is no doubt that changes are needed in the Pharmacopeia. There is no doubt also that the manufacturing interests will be well represented in the coming convention, as they have been in the recent ones; the interests of the medical profession will be represented if medical societies attend to the matter, otherwise not.

THE COUNTY SOCIETY

The county society is the basis of organization. It is not only the portal of entrance to the state and the national medical associations, but it is the unit that influences the whole organization. As are these units, so will be the whole. The state that has active working county societies will have an active working state society, and practical results of every endeavor will follow. On the contrary, when the county societies do little or nothing, the organized profession of that state will do little or nothing—and will be without influence. Incidentally, the secretary of the county society is the one on whom depends whether or not the society shall be an active working body. Occasionally there will be a sufficient number of members who have the good of the society at heart to overcome a poor secretary, but very seldom. Hence the plan of having an annual meeting of the county secretaries, which has been adopted in several states, is a most commendable one and must result in good in various ways. These thoughts are suggested at this time by the paper of Dr. Sleyster in this issue. He speaks not from theory or observation, but from practical experience, and brings out many valuable points.

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[1] THE JOURNAL A. M. A., March 7, 1908, li, 771.

Medical News

ALABAMA

Personal.—Dr. Wooten M. Wilkerson, Montgomery, has been elected a member of the board of trustees of the Alabama-Bryce Hospitals.——Dr. William G. Ward, Mobile, has been elected health officer of Mobile county.——The Jefferson County Medical Society, at its meeting April 26, decided to support Dr. Robert B. Harkness as health officer of Birmingham and virtually defied the demand of the city council for the election of another health officer.

State Society Meeting.—At the annual meeting of the Medical Association of the State of Alabama, held in Birmingham, April 20 to 23, the following officers were elected: President, Dr. Wooten M. Wilkerson, Montgomery; vice-presidents, Drs. Robert J. Redden, Sulligent, and Robert L. Sutton, Orrville; secretary, Dr. James Norment Baker, Montgomery; treasurer, Dr. Henry G. Perry, Greensboro, and state health officer, Dr. William H. Sanders, Montgomery, re-elected for a five-year term. A resolution was adopted making it necessary for physicians to submit their diplomas from accredited medical colleges before being authorized to take the state examination. The Jerome Cochran lecture was delivered by Dr. Lewellys F. Barker, Baltimore, on "Clinical Methods of Cardiac Investigation." The 1910 meeting of the association is to be held in Mobile.

ALASKA

Hospital Burned.—The three-story hospital building at Katalla was destroyed by fire April 14, with a loss of about $25,000, partially covered by insurance.

License to Be Required.—It is announced from Valdez, that hereafter physicians, surgeons, and midwives desiring to practice in Alaska, will be required to procure a license from the federal authorities. The new law amending the Alaska code, which passed congress February 6, provides that physicians must secure a license, which will be granted to members of the medical profession who have diplomas recognized by the Association of American Medical Colleges.

CALIFORNIA

Personal.—Dr. Thomas E. Cunnane, Ventura, has been selected as physician of Ventura county.——Dr. and Mrs. David Haddon, Berkeley, have gone abroad for six months.——Dr. Joseph E. Artigues has been elected surgeon and Drs. Michael H. Etcheverry and Edward A. Besson have been made physicians to the French Hospital, San Francisco.

Hospital News.—A fire in the roof of the main or middle ward of Yuba County Hospital, Marysville, April 7, caused damage of $10,000 and threatened to destroy the entire institution.——An order is said to have been signed by Judge Cabaniss, April 22, declaring the Clara E. Barton Hospital, San Francisco, insolvent.——Marysville Hospital was opened for reception of patients April 18.——Contracts have been let for the construction of the Adler Sanitarium, San Francisco.——The supervisors of Butte County have decided to expend $10,000 for repairs and sanitary improvements at the county infirmary.——The Methodist Hospital, Los Angeles, is to be transferred to the Hazard residence, which was recently purchased for $21,500.

State Society Meeting.—At the annual meeting of the Medical Society of the State of California, held in San Jose, April 20 to 22, the following officers were elected: President, Dr. James H. Parkinson, Sacramento; vice-presidents, Drs. William Simpson, San Jose, and William B. Sawyer, Riverside; secretary, Dr. Phillip Mills Jones, San Francisco (re-elected), and councilors, Drs. Fred Baker, San Diego, Thomas C. Edwards, Salinas, George H. Aiken, Fresno, Henry A. L. Ryfkogel, San Francisco, and Wallace A. Briggs, Sacramento. The following were nominated for members of the State Board of Medical Examiners: Drs. Andrew S. Lobingier, Los Angeles; George F. Reinhardt, Berkeley; Walter Lindley, Los Angeles; William W. Roblee, Riverside; Fred R. Burnham, San Diego; William P. Burke, San Francisco; Charles D. Ball, Santa Ana; J. Henry Barbat, San Francisco; Abraham L. Cothran, San Jose, and George H. Evans, San Francisco. Sacramento was selected as the next place of meeting.

GEORGIA

Personal.—Dr. Henry M. Fullilove, Athens, has been appointed physician of Clarke county.——Dr. William S. Elkin, Atlanta, has been elected president of the Capital City Club.

Permit for Sanitarium Refused.—By unanimous vote the hospital and charities committee of the Atlanta General Council, is said to have denied the application of Dr. William A. Starnes for a permit to conduct a sanitarium on Edgewood avenue.

More Beds Needed at Grady Hospital.—The new superintendent of Grady Hospital, Atlanta, says that there is urgent need for 100 more beds in that institution. The annual appropriation of $60,000 is inadequate, and should be increased to $75,000. He estimates that the addition necessary for the hospital will cost about $100,000.

State Board Will Distribute Antitoxin.—At a meeting of the State Board of Health, April 23 and 24, it was decided to supply on demand to any physician in the state, a sufficient supply of virus and antitoxin for use in cases of rabies, and to give farmers and others on application a similar preparation for the treatment of hydrophobia in animals.

Commencements.—The annual commencement exercises of the Medical College of Georgia, Augusta, were held May 1. The chancellor, Hon. David C. Barrow, and Rev. E. F. Dempsey delivered addresses. A class of 22 was graduated.——A class of 40 was graduated from the Atlanta College of Physicians and Surgeons April 29.——The Atlanta School of Medicine graduated a class of 51 April 26. The degrees were conferred by Hon. W. J. Northen, and the doctorate address was delivered by Surgeon General Walter Wyman, P. H. and M.-H. Service, who spoke on "The Relation of the Physician in Private Practice to Public Health."

State Association Meeting.—At the sixtieth annual meeting of the State Medical Association of Georgia, held in Macon April 21 to 23, Athens was selected as the place of next meeting. The following officers were elected: President, Dr. Thomas J. McArthur, Cordele; vice-presidents, Drs. Marcus F. Carson, Griffin, and John R. Shannon, Berner; secretary, Dr. Claude A. Smith, Atlanta (re-elected); delegates to the American Medical Association, Drs. George R. White, Savannah, and Henry F. Harris, Atlanta; and councilors, Drs. William B. Hardman, Commerce, ninth district; Wyman W. Pilcher, Warrenton, tenth district, and Jefferson D. Hermann, Eastman, eleventh district.

ILLINOIS

Chiropody Bill Passed.—The house of representatives has passed, by a vote of 18 to 13, Representative Rutzler's bill creating a board of chiropody to be appointed by the governor, with power to examine and license applicants.

Personal.—Dr. George S. Murphy, Rockford, has moved to Lubbock, Texas, where he is now building a thirty-bed hospital, to be known as Lubbock Sanatorium.——Dr. Rowland L. Green, Peoria, has sailed for Europe.——Dr. William R. Parkes has been elected president of the Evanston Antituberculosis Association.

Society Meetings.—At the annual meeting of the Central Illinois District Medical Society, held in Pana, April 27, the following officers were elected: President, Dr. Don W. Deal, Springfield; vice-presidents, Drs. Franklin A. Martin, Tower Hill, and J. William H. Sparling, Moweaqua; secretary, Dr. Charles Burgess, Pana; treasurer, Dr. John N. Nelms, Taylorville, and censors, Drs. Everett J. Brown, Decatur, John D. Colt, Litchfield, and Louis F. Brown, Hillsboro.——At the annual meeting of East St. Louis Medical Society, April 26, the following officers were elected: President, Dr. Oro J. Culberson; vice-president, Dr. Roy S. Stanton; secretary-treasurer, Dr. Charles W. Lillie, and censors, Drs. John A. Grimes and Henry R. Ressel.

Chicago

Concert for Hospital.—A concert was given in Orchestra Hall May 2, in aid of the building fund for the new German Evangelical Deaconess Hospital at Fifty-fourth place and Morgan street.

Commencement.—Degrees were conferred on a class of 31 by Dr. Jacob F. Burkholder, president of the Illinois Medical

College, April 30. The doctorate address was delivered by Dr. William F. Rittenhouse.

How Communicable Diseases Spread.—The chief of quarantine and disinfection of the department of health summarizes the cause of the spread of diphtheria and scarlet fever as follows: Mild unrecognized cases; hidden cases; mild recognized cases about which sufficient precautions have not been taken, and convalescent cases apparently well.

Personal.—Dr. David Lieberthal, professor of skin and venereal diseases in the Illinois Medical College, has resigned.——Dr. Isaac A. Abt has resigned as associate professor of pediatrics in Rush Medical College, and has accepted the professorship of pediatrics with Dr. Frank X. Walls in Northwestern University *Medical School.——Dr. Carl Wagner* has been appointed attending surgeon in the Columbia Hospital.——Dr. Thomas A. Woodruff has been elected president of the Calumet Club.

MARYLAND

Gift to County Hospital.—Mr. William Newcomer, Hagerstown, has given $15,000 to the building fund of the Washington County Hospital, Hagerstown, in commemoration of his golden-wedding anniversary.

The New Bayview Hospital.—Plans for the new hospital to be erected at Bayview, the Baltimore almshouse, are almost perfected. The new building will cost probably $75,000, and, it is to be hoped, will relieve the present congested condition at the institution, where at present there are nearly 1,600 inmates with accommodations for only 1,200.

Baltimore

Psychiatric Clinic Building.—The plans for the Phipps' Psychiatric Clinic provide for the construction on the grounds of Johns Hopkins Hospital of a building five stories in height, capable of accommodating 500 patients in the early stages of insanity.

Mosquito Ordinance.—The health commissioner of Baltimore has announced his intention of rigidly enforcing the antimosquito ordinance which went into effect May 3. The penalty for violaton of any provision of this ordinance is a fine not to exceed $10.

Personal.—Dr. Claribel Cone, Baltimore, sailed for Italy April 24.——Dr. James S. Woodward, for twenty-one years chief resident surgeon of the Maryland Steel Company, Sparrows Point, has resigned and will retire from practice.——Dr. Charles K. Edmonds has returned to Baltimore after six years' absence in China.——Dr. Lillian Welsh has been elected president of the Naples Table *Association for the Promotion* of Scientific Research by Women.——Associate Professor S. F. Acree, Dr. Carl Voegtlein, associate in pharmacology and physiologic *chemistry, and Prof. Harvey C. Jones of Johns Hopkins* University will sail for Europe early in June.——Dr. Samuel C. Chew is ill with influenza at the University Hospital.

MASSACHUSETTS

Unlicensed Practitioner Fined.—Anna Podlinski, Turners Falls, charged with practicing *medicine* without a license, is said to have been found guilty in the district court April 13, and fined the minimum penalty, $100. An appeal was taken.

Personal.—Dr. Winthrop S. Blanchard has been appointed bacteriologist of the Boston Board of Health.——Dr. Charles A. Drew, Bridgewater, has been appointed superintendent of the Worcester City *Hospital.——Dr. William A. Dunn,* Boston, has had conferred on him by the pope the honorary rank of Knight Commander of the Order of Gregory the Great.

Lecture and Clinical Talk.—Dr. S. Adolphus Knopf, New York City, gave a public lecture in the White Fund Course at Lawrence, May 5, and afterward gave a clinical talk to the medical profession of *the city on the* "Early Physical Diagnosis and Prognosis of Pulmonary Tuberculosis," after which supper was served and a reception held.

Harvard Approves of Medical School in Orient.—The movement in the Harvard Medical School for the establishment of a medical school in the Orient, preferably in China, has been approved by the president of the university and the faculty of the school. It is proposed to send Dr. M. B. Edwards to China to carry on investigations with regard to the location and to raise an endowment fund, of which the following have been named as trustees: President Charles W. Eliot, chairman, and Drs. Henry P. Walcott, Arthur T. Cabot, William T. Councilman, Boston; Walter B. Cannon, Cambridge; Henry A. Christian, Boston; and E. C. Moore.

Harvard Alumni Doings.—The annual alumni day of Harvard *University Medical School* will be held May 20. The regular teaching is to continue. There are to be clinics and demonstrations at the hospital, and a luncheon will be served in the *administration building, tendered* by the medical school. In the afternoon the laboratories will be open for inspection, and in the evening the triennial dinner of the medical alumni association will be held, over which Dr. Alfred Worcester will preside as toastmaster.——The annual meeting of the alumni association will be held in Sprague Hall, Boston Medical Library, June 29. On June 30, the association will have its headquarters at Stoughton Hall in the College Yard, where lunch will be served *for members.——June* 8 has officially been set aside for reunions at the American Medical Association, Atlantic City, and Harvard Medical Alumni will hold an informal reunion and dinner on that evening. Arrangements are in charge of Dr. Nathaniel B. Potter, 48 W. 51st street, New York City.

MICHIGAN

Agrees Not to Prescribe Liquor.—*At the recent meeting of* the Ionia County Medical Society, resolutions were adopted that the members of the society should not write prescriptions for intoxicating liquors to be used as beverages.

Communicable Diseases.—During March 331 cases of pneumonia, 250 of tuberculosis, 87 of typhoid fever, 216 of diphtheria, 29 of *meningitis, 89 of* whooping cough, *319 of scarlet* fever, 720 of measles, and 99 of smallpox were reported in the state.

Personal.—Dr. and Mrs. Frederick H. Williams, Lansing, sailed for Germany, April 27.——Dr. Colonel B. Burr met with a painful fall at the Michigan School for the Deaf, Flint, April 20.——Dr. David J. Levy, health *officer of Kalamazoo,* has resigned and has been succeeded by Dr. Alvin H. Rockwell.——Dr. Oscar C. Breitenbach, Escanaba, is reported to be seriously ill with typhoid fever.——Dr. *Hermann* C. Emmert has been made physician of the Wayne County House, Eloise, vice, Dr. Romeo H. Earle, resigned.

MINNESOTA

Vital Statistics.—During 1908, there were 44,247 births and 22,160 deaths reported in the state.

Tuberculosis Hospital.—The assembly has granted a license to the St. Paul Antituberculosis Society for the operation of a tuberculosis hospital on a site on which the society has secured options. It is planned to establish a summer camp for tuberculosis at this place.

In the Hands of the Law.—A jury in the case of Royal M. Bly, Minneapolis, charged with assisting in a criminal operation, returned a verdict of not guilty April 22.——H. E. Coger, head of a dermatologic institute in Minneapolis, is said to have been deprived of his license to practice medicine in the state by the State Board of Medical Examiners, at their meeting April 16. *Attention was first called to this* individual by the death of one of his patients said to have been due to blood poison following an operation for the removal of a scar, and it was then ascertained that he had not been a graduate of a reputable medical school when he applied for a reciprocal license in January.——Dr. Robert W. Campbell, Swanville, charged with assault and battery on the person of a school teacher, is said to have been found guilty and fined $25 with the *alternative of 20 days in jail.* He has appealed the case.——Dr. Charles B. Lenont, Virginia, against whom a verdict for $231.53 is said to have been returned in the *District Court* on the charge of *malpractice,* has filed notice that he will demand reversal of the judgment or will ask a new trial.——Arthur C. Moorhead, formerly of Minneapolis, has filed in the Ramsey County District Court a petition asking that a writ of certiorari be issued against the State Board of Medical Examiners for having revoked his license to practice *medicine* in the state. *The petition* asks that the District Court demand the records and proceedings of the hearing and proceed thereon for reversal.

MISSISSIPPI

Society Meetings.—At the session of the Clarksdale and Six Counties Medical Association, held in Clarksdale March 25, the following officers were *elected*: President, Dr. John S. Brooks, Robinsonville; secretary, Dr. Lewis E. Pierce, Stovall, and treasurer, Dr. Luther D. Harrison, Clarksdale.——At the annual meeting of Lauderdale County Medical Society, held in Meridian March 25, Dr. James Bennett was elected president; Dr. T. J. Houston, vice-president; Dr. *Samuel* H. Hairston, secretary-treasurer; Dr. Robert L. Turner, delegate to the state society, and Dr. Henry S. Gully, censor, all of Jackson.

Contract Practice Among Farmers.—In the eastern part of the state, particularly in Jones, Wayne and Jasper counties, the Farmers' Union is said to have become a menace to ethical medical practice by the inauguration of contract practice among farmers. "Union doctors" are established in Heidelberg, Sandersville and other rural towns. They charge a fee of $10 per annum for family practice, the head of the family making the contract with the physician. Jones County Medical Society, at a recent meeting voted to debar from membership physicians who make individual contracts, as well as physicians who consult such contract practitioners.

NEBRASKA

Personal.—Dr. Frederick J. Wearne, Omaha, who has been abroad for several months, sailed for home April 24.——Dr. Fletcher A. Butler, Harvard, has been elected president of the Clay County Medical Society, and delegate to the state society.——Dr. Lucien Stark, Henderson, has been elected president of the York County Medical Society.

Elections.—At the annual meeting of Richardson County Medical Society, held in Falls City, April 13, Dr. Millard L. Wilson, Falls City, was elected president; Dr. John A. Waggener, Humboldt, vice-president; and Dr. Gaylord M. Andrews, Stella, secretary-treasurer.——Gates County Medical Society, at its quarterly meeting, held in Beatrice, April 8, elected Dr. Charles S. Curry, Beatrice, president; Dr. Ira N. Pickett, Odell, vice-president; Dr. John I. McGirr, Beatrice, secretary-treasurer, and Dr. Louis Penner, Beatrice, censor.——Knox County Medical Society held its annual meeting at Creighton, April 2, and elected the following officers: President, Dr. James H. Mettlen, Bloomfield; vice president and delegate to the state medical society, Dr. Czar C. Johnson, Creighton; secretary-treasurer and alternate delegate to the state medical society, Dr. John B. Bates, Verdigris, and censors, Drs. William H. Britt, Creighton; Edson L. Bridges, Wausa, and Willard K. Clark, Niobrara.——Cuming County Medical Society, at its last meeting, elected Dr. Harry W. Francis, Bancroft, president; Dr. Thompson, Beemer, vice-president, and Dr. Harry L. Wells, West Point, secretary-treasurer.

NEW YORK

Assembly Action.—The assembly has for the second time refused to pass the bill to allow the use of skimmed milk in New York City for manufacturing purposes.——The assembly concurred in the senate amendment to the bill reducing from 15 to 9 the number of members of the State Board of Pharmacy and providing for their control by the State Board of Regents. This amendment will prevent the prosecution of manufacturers for violation of the pharmacy laws outside the state.

May Change Site of State Hospital.—If the present plans for the purchase of a site for a state hospital at Greenvale, Long Island, are not carried out and the land is not actually purchased and conveyed to the state, the commission will still have power to buy other lands at other places, even though they may have gone so far as to enter into contracts for the purchase of the former property. This decision was made necessary owing to the opposition of a large number of residents in the neighborhood of Greenvale to the establishment of the hospital in that locality.

Is State Responsible?—The Deputy State Superintendent of Public Instruction contemplates bringing a test action to decide if the state can not be held negligent because a client of his was afflicted with tuberculosis while in the employ of the state education department at the capital. It is claimed that this client would not have contracted tuberculosis if she had not been required to work in a room which had been occupied by another girl who afterward died of tuberculosis. Two other girls besides the client were also affected by the disease and it is claimed that no move was made to fumigate until after the three girls had become ill.

Senate Passes Bills.—The senate has passed the Hoey bill creating in New York a board of ambulance control, to district the city for ambulance service and to have jurisdiction over such service. The board is to consist of the police commissioner, the charities commissioner, the president of the board of trustees of Bellevue and the Allied Hospitals, and two citizens representing private hospitals, to be appointed by the mayor.——The bill has been passed abolishing the office of the Board of Quarantine Commissioners of the Port of New York, and imposing their duties on the Health Officer of the Port of New York, Dr. Alvah H. Doty. Dr. Doty has been allowed such assistants as he needs and it is estimated that the work of the quarantine station will now be carried on at about one-half the expense hitherto incurred.

Increase in Insanity.—The sixteenth report of the State Charities Aid Association records the largest increase of insanity in the history of the state. There were in the state hospitals and licensed institutions 30,507 persons, an increase of 1,414 over the previous year. In the previous ten years the average annual increase was 714. In discussing this apparent increase in the number of cases of insanity, Drs. Frederick Peterson, Charles L. Dana, Allan Fitch and Carlos F. MacDonald were of the opinion that the increase was more apparent than real. There was a greater trust in the hospitals and willingness to entrust patients to the state asylums than formerly. Patients are much better cared for than formerly and live longer and this has a tendency to keep a larger number in institutions. Patients were also sent to the hospitals sooner than formerly in the belief that early treatment was more likely to be curative. The migration was no doubt responsible for a part of the statistical increase.

New York City

Money to Combat Tuberculosis.—Mr. Frederick T. Martin has given President Nicholas Murray Butler of Columbia University $10,000 which he had collected personally for the purpose of combating tuberculosis.

Personal.—In recognition of his services to the Yorkville Dispensary and Hospital for Women and Children, Dr. Herman B. Sheffield was recently presented by the medical staff of the hospital with an electrolier and stand.

Vacancy in Clinic.—The position of first assistant and chief of clinic in the night genitourinary clinic of the West Side German Dispensary is now vacant. Applicants may address Dr. A. L. Wolbarst, 105 E. Nineteenth street, stating experience, etc.

Annual Lecture.—The governors of the New York Skin and Cancer Hospital announce that Dr. William Seaman Bainbridge will give the fifth annual lecture on malignant disease with presentation of patients, in the out-patient hall of the hospital, Second avenue and Nineteenth street, May 12, at 4:15 p. m.

Tuberculosis Exhibition Opened.—The committee of the Charity Organization Society on the prevention of tuberculosis has opened its free traveling tuberculosis exhibition at Fifth avenue and Fourteenth street. Some one is always on hand to answer questions. Lectures are given at noon two or three times each week and literature is distributed freely.

To Protect Life and Limb.—The Commission of Public Service has issued an order compelling street railways to equip their surface cars with fenders and wheel guards. In the report accompanying this order it was stated that accidents on the street railway system during the fiscal year had reached the number of 54.481, that 444 persons had been killed and 2.591 seriously injured.

Still Oppose Consumptives' Hospital.—The Staten Island members of the Board of Aldermen have protested against the appropriation of $1,350.000 corporate stock for the Sea View Hospital for Consumptives. They have always been opposed to having this institution on Staten Island. The hospital has been built and this money was intended for equipment. The resolution was finally voted down.

Gifts to University.—The Council of the New York University has accepted the gift of $75,000 from Andrew Carnegie in honor of the successful work done in bacteriology and pathology during the past twenty-five years by the Carnegie Medical Laboratory. This fund will be applied to the extension of the present Carnegie Laboratory Building.——The widow and daughter of Glover C. Arnold have made a gift of $2,000, the income of which is to be awarded each year to the member of the graduating class of the University and Bellevue Medical College who shall stand highest in surgery.

Physicians Summoned.—In the case of the New York County Medical Society against the Dr. Week's medical office, which was summoned to appear on the charge of practicing medicine without a license on the complaint of the medical society, subpenas were served on several physicians. The attorney for the defendant claimed that his purpose in doing this was to test the constitutionality of the state statute which gives the fines imposed for convictions of offenses against the medical laws to the New York Medical Society. The subpenaed physicians did not appear, but in their stead the attorney for the County Medical Society was present. The defendants were discharged on their own recognizance.

Dr. Ordronaux's Bequests.—The executors of Dr. John Ordronaux's estate have filed their accounting. Under the will Dartmouth College receives $30.000; the University of Vermont, $10,000; Trinity College, $10.000; Nassau Hospital Association of Mineola, $6,000; the Society for the Relief of the Destitute Blind of New York City, $5,000; the Episcopal Diocese of Long Island, $5.000; the Children's Society of New York. $5,000 *for* use of its summer charities; the George Washington University of Washington, $5.000; the Columbia Law School, $5,000 to be used for yearly prizes; and the Episcopal Diocese of New Hampshire, $5,000

NORTH CAROLINA

Personal.—Dr. John A. Pollock, Kinston, has resigned as surgeon general N. C. N. G., and Dr. Robert S. Young, Concord, has been reappointed. This is his third term in that position.——Dr. Chase P. Ambler, Asheville, has declined the republican nomination for mayor of that city.

Commencement.—The annual commencement exercises of the North Carolina Medical College. Charlotte, were held April 26. when a class of 19 was graduated. The address to the graduating class was delivered by Dr. Lewis B. McBrayer, Asheville, and the diplomas were presented by the president, Dr. J. P. Monroe.

NORTH DAKOTA

State Association to Meet.—The North Dakota State Medical Association will meet for its annual session in Fargo May 11 and 12, under the presidency of Dr. Henry A. Beaudoux, formerly of Fargo, but now of St. Paul.

Antituberculosis Association Organized.—The North Dakota Antituberculosis Association has been incorporated by Mrs. E. B. Quain, A. P. Lenhart, Dr. G. A. Rawlings, Bismarck, and Dr. James Grassick, Grand Forks, president of the State Board of Health.

April Vital Statistics.—During April there were reported 653 births and 232 deaths. There were reported during the month 59 cases of diphtheria with 4 deaths, 58 cases of smallpox with no deaths, 55 cases of scarlet fever with 4 deaths, 9 cases of tuberculosis, and 15 cases of typhoid fever with 2 deaths.

PENNSYLVANIA

Nurses' Bill Signed.—The Nurses' bill was signed by Governor Stuart May 1. One year from that date it will be unlawful for any person to use the title of "registered nurse" except by the authority of a certificate issued by the State Board of Examiners for the Registration of Nurses. Nursing by persons not equipped with such certificates is not prohibited, but they must refrain from representing themselves as registered nurses. The examining board is to consist of three physicians and two graduate nurses. Two of the physicians must be connected with a hospital maintaining a training school for nurses.

Philadelphia

Failed to Report Births.—Four physicians and three midwives, who were tried before the Magistrates' Court, April 29, charged with failure to report births within ten days, as required by law, were found guilty and fined the costs of the case.

Dispensary Opened.—A new dispensary for the treatment of tuberculosis was opened in the northern section of the city April 22. The new institution will be under the general supervision of Dr. Alfred Stengel, and Dr. W. C. Turnbull will have direct charge of the work.

Hospital Ex-Internes Meet.—The annual meeting and banquet of the Association of Ex-Resident Physicians of the German Hospital was held May 7. The following officers were elected: President, Dr. Henry F. Page; secretary, Dr. John C. Gittings, and historian, Dr. A. P. Miller.

Money for Hospitals.—An anonymous gift of $25,000 has recently been made to the Episcopal Hospital.——The will of the late Henry Harmer contains a provisional bequest of $3,500 to the Home for Consumptives at Chestnut Hill.——The will of the late Edwin N. Benson bequeaths $50,000 to the Pennsylvania Hospital and $10,000 to the Chestnut Hill Hospital.——Provisional bequests from an estate valued at $61,000 to the Episcopal Hospital, Philadelphia Home for Incurables and Home for Consumptives are contained in the will of the late Fannie B. Shoemaker.

Personal.—Dr. J. Leslie Davis has been appointed otologist and laryngologist to St. Agnes' Hospital to succeed Dr. Nathan G. Ward, resigned.——Dr. A. Donaldson Smith has been appointed United States Consul at Patras, Greece.——Dr. Randall C. Rosenberger, newly-elected professor of bacteriology and hygiene in Jefferson Medical College, was tendered a testimonial dinner by his colleagues, May 1. Dr. Thomas J. Buchanan was toastmaster.——The James A. Meigs Medical Association tendered a reception and dinner, April 29, to Dr. Albert P. Brubaker, who was recently elected professor of physiology in Jefferson Medical College.

SOUTH CAROLINA

Commencement Exercises.—The annual commencement exercises of the Medical College of the State of South Carolina, Charleston, were held April 28, when a class of 36 was graduated. United States Senator E. D. Smith delivered the address to the graduates.

Bacteriologic Laboratory to Be Established.—The State Board of Health, at a meeting in Summerville, April 20, decided to establish a bacteriologic laboratory in Columbia, and Drs. Charles F. Williams and William Weston were appointed a committee to arrange for the institution.

Loving Cup Presented.—A silver loving cup bearing the following inscription: "Presented by the citizens of St. Matthews to the skilful physician, the faithful friend, the devoted Christian. and to their 'Grand Old Man' whose life is an inspiration. whose presence is a benediction. His people love him." was presented by citizens of St. Matthews to Dr. William Lewis Pou on the occasion of his eightieth birthday anniversary. The presentation was made by Rev. D. D. Dantzler Orangeburg.

Hospital Transferred.—Arrangements were completed April 13, for the transfer of the Columbia Hospital, value $75,000. to an association of Columbia physicians. The new organization has adopted a constitution and by-laws and elected the following officers: President, Dr. Dargan S. Pope; vice-president, Dr. Leonard K. Philpot; secretary-treasurer and superintendent of the hospital, Dr. A. Earle Boozer, and executive committee, Drs. Le Grand Guerry. Lewis A. Griffith, Samuel E. Harmon, Theodore M. DuBose, William Weston and Lawrence B. Owens.

Personal.—Dr. John J. Kirksey, Saluda, has been elected president of the Saluda County Antituberculosis Association. ——At the annual meeting of Laurens County Medical Society, March 22, Dr. William D. Ferguson, Laurens. was elected president, vice Dr. Samuel F. Blakely, Ora, and Drs. Jesse H. Teague, Laurens, and Thomas L. W. Bailey, Clinton, were elected delegates to the state medical association.——Dr. Lewis A. Griffith has been elected health officer of Columbia.——Dr. John L. Dawson has been re-elected vice-chairman; Dr. John M. Green, secretary, and Dr. Robert Wilson, Jr., bacteriologist of the Charleston Board of Health.

State Society Meeting.—The South Carolina Medical Association held its sixty-fifth annual session in Summerville April 20 to 22, and voted to meet in Laurens next year. The following officers were elected: Dr. John L. Dawson, Charleston, president; Drs. Frank H. McLeod, Florence; Charles M. Rees, Charleston, and Augustus H. Hayden, Summerville, vice-presidents; Dr. Walter Cheyne, Sumter, secretary; Dr. Charles P. Aimar, Charleston, treasurer; and Drs. Joseph Maybank, Charleston, first district; Henry G. Eleazer, Peak, second district; R. Andrae Bratton, Yorkville, Fifth District; Joseph J. Watson, Columbia, Seventh District, and Dr. A. Earle Boozer, Columbia, at large, to fill vacancies in the Regular Board of Medical Examiners. Dr. J. Wilkinson Jervey, Greenville, was re-elected editor of the journal of the association.

TENNESSEE

Colleges Will Not Consolidate.—At a meeting of the faculty of the Medical Department of the University of Nashville, April 20, it was decided that the proposed merger between the Medical Department of Vanderbilt University, the University of Tennessee, and the University of Nashville should not be entered into at present, and that the existing conditions will be continued.

Office Building for Physicians.—On the site of the house of the late Dr. N. D. Richardson, which was afterward the home of Dr. John A. Witherspoon, an office building is to be erected exclusively for the use of Nashville physicians. The Parkes Building Company will erect this building, which will be six stories high, 50 by 114 feet, of reenforced concrete and steel construction.

College Applies for Charter.—Plans which have been in progress for some time to make the College of Physicians and Surgeons the nucleus for the University of Memphis, were publicly announced April 7. They contemplate consolidation of the proposed university with the present College of Physicians and Surgeons, and the establishment of a college of pharmacy, and a college of dental surgery within a short time, and other departments as rapidly as they can be organized.

Graduating Exercises.—The annual commencement of the Tennessee Medical College, Knoxville, was held April 30, when degrees were conferred upon a class of 13 by General O. O. Howard. The doctorate address was delivered by Rev. Heber D. Ketcham, D.D.——At the twentieth annual commencement exercises of Chattanooga Medical College diplomas were given to a class of 24. The speakers of the evening were introduced by the dean, Dr. John R. Rathmell. Dr. German P. Haymore delivered the faculty address. An address was also delivered by Rev. A. R. Riker, Moundsville, W. Va., on the "Modern Idea of the Necessity of Scholastic Preparation for Entering the Professions," and the Hon. George W. Ochs, Philadelphia, delivered the commencement address.

VIRGINIA

Sanitarium Burns.—The Mecklenburg Hotel and Sanitarium at Chase City, valued at $200,000, and insured for $75,000, was destroyed by fire April 16.

Personal.—While cranking his automobile April 26, Dr. Edward H. Claude, Portsmouth, sustained a compound fracture of the right arm.——Dr. James M. Whitfield, chemist to the board of health, Richmond, will probably be the first incumbent of the new position of city chemist.

Hospital Notes.—The four Richmond hospitals doing charity work, namely, Memorial, Virginia, Retreat for the Sick and Sheltering Arms, have combined into an organization known as the United Hospitals, the object of which is to furnish charity work done by all at present, and to give other organizations a chance to contribute.——More than $7,000 has thus far been raised at Harrisonburg for the establishment of a hospital in that place.

Society Meeting.—At the eighth annual meeting of the South Piedmont Medical Society, held in South Boston April 22, the following officers were elected and installed: President, Dr. James S. Irvin, Danville; vice-presidents, Drs. Charles H. Gibbs, Charlotte Court House; W. Macon Smiley, Houston; William J. Innis, Brookneal, and Julian McG. Robinson. Danville; secretary, Dr. George A. Stover (re-elected), and treasurer, Dr. James L. Kent, Lynchburg.

WASHINGTON

Medical Building.—The Cobb Building, to be erected by the Metropolitan Building Company at Fourth Avenue and University street, Seattle, is to be devoted exclusively to the use of physicians and dentists.

Clean-Up Campaign.—The state commissioner of health has made an inspection trip of the cities of Puget Sound to determine the prevalent sanitary conditions, with especial reference to the prevention of bubonic plague.

Chehalis Physicians Take Cards from Newspapers.—Eleven members of the Chehalis County Medical Association have agreed to discontinue the insertion of professional cards in certain local journals because the latter are said to have accepted and published advertisements exploiting medical fakers and quacks.

New Marriage License Law.—A new state marriage license law has been enacted, which goes into effect June 14. After that date each applicant for marriage license will have to present a certificate from a reputable physician showing that both contracting parties to the proposed marriage are mentally and physically sound, and in addition must produce two witnesses who will subscribe under oath that they have known the prospective bride and groom for at least two years.

Personal.—Dr. Elmer E. Heg, Seattle, secretary of the State Board of Health, has been appointed state commissioner of health.——Dr. William L. Ludlow, Seattle, has been chosen physician of King county.——Dr. Rose A. Bebb, Seattle, bacteriologist of the State Board of Health, has resigned.——Dr. Frank P. Witter, Spokane, has been elected a member of the State Board of Medical Examiners.——Dr. Thomas Tetreau, North Yakima, has been continued as physician of Yakima county and city health officer.——Drs. Orville L. Adams and George W. H. Moore, Davenport, have been elected delegates from the Lincoln County Medical Association to the state association, and Drs. Lee Ganson, Odessa, and Joseph I. Kaulbach, Edwall, alternates.——Dr. Nils A. Johanson has been appointed a member of the municipal civil service medical examining board, vice Dr. John P. Sweeney, term expired.

WISCONSIN

Personal.—Dr. W. F. Dearborn, assistant professor of educational psychology in the University of Wisconsin, has resigned to take a similar positon in the University of Chicago.——Dr. William J. Griffin, Ashland, sailed from New York for Europe, March 30.——Dr. John E. Meany has been reappointed health officer of Manitowoc.——Dr. George P. Barth has been appointed examining physician of the public schools of Milwaukee.——Dr. George L. Nicklas, Platteville, announces that he is about to retire from practice.

GENERAL NEWS AND COMMENT

Any One Allowed to Treat Leprosy and Tuberculosis.—The leprosy bill passed its third reading in the Hawaiian legislature April 14. It permits any one to treat leprosy, asthma and tuberculosis after regular physicians have decided the case hopeless.

Medical Member of Liberian Commission.—Dr. Percy M. Ashburn, U. S. Army, has been made a member of the commission appointed to go to Liberia to study conditions there, with a view of improving the management of the affairs of the republic, and providing better for its maintenance and integrity.

Delegates to Chemistry Congress.—The state department has approved the attendance of the following American delegates at the International Congress of Applied Chemistry to be held in London this month: Drs. Harvey W. Wiley and Allerton S. Cushman of the Department of Agriculture; Dr. Frank C. Clark, United States Geological Survey; Drs. Charles Baskerville, York; William H. Nichols, Maxmilian Toch, Herbert Plant and Morris Loeb, New York City, Dr. William L. Dudley, Nashville, Tenn., and Dr. L. H. Baekeland, Yonkers, N. Y.

Alumni Election.—At the annual home-coming week of the University of Pennsylvania, the medical alumni held their annual meeting and dinner, at which the following officers were elected: President, Dr. Wharton Sinkler, Philadelphia; vice-presidents, Drs. Allen J. Smith, James B. Walker and George A. Piersol, Philadelphia; Dr. Alonzo E. Taylor, San Francisco; Dr. Theodore Diller, Pittsburg; Dr. George W. Guthrie, Wilkesbarre, Pa., and Dr. Edward Jackson, Denver; secretary-treasurer, Dr. Edward A. Shumway, Philadelphia, and historian, Dr. Roland G. Curtin.

Examination for Army Medical Corps.—The Surgeon General announces that preliminary examinations for appointment of first lieutenants in the medical corps of the Army will be held July 12, at points later to be designated. Applicants must be between 22 and 30 years of age, graduates of an authorized medical school, and must have had at least one year's hospital training or its equivalent. The appointment of first lieutenant carries with it an initial salary of $2,000 per annum, in addition to quarters, mileage, privilege of retirement, etc. Application for information regarding the examination should be made to the Surgeon General, U. S. Army, Washington, D. C.

The Carroll Fund.—The following subscriptions have been received since the last report:

Previously reported	$3,446.35
Dr. George Homan, St. Louis	10.00
Dr. Myles Standish, Back Bay, Boston	10.00
Dr. William B. Wherry, San Francisco	2.00
Dr. F. N. Mead, Cedar Falls, Iowa	1.00
Dr. M. Manges, New York City	5.00
W. W., New York City	5.00
Dr. Richard M. Pearce, New York City	2.00
Dr. Herman G. Klotz, New York City	2.00
Dr. H. Kugeler, San Francisco	5.00
Dr. Lewis E. Maire, Detroit	1.00
Officers of the Medical Corps	179.00
	$ 222.00
Total amount subscribed	$3,668.65

The sum of $3,800 is still necessary to raise the mortgage on this property. This would be a small contribution for the medical profession to make to the memory of one of the representatives of the commission that did so much for the glory of the profession and for the good of the country. Send all contributions to Major M. W. Ireland, Surgeon General's Office, War Department, Washington, D. C.

Warren Prize.—Dr. Frederick A. Washburn, resident physician in the Massachusetts General Hospital, Boston, announces that the Warren Triennial Prize for 1910 is to be on some one special subject in physiology, surgery or pathology. The dissertation must be either in English, French or German, and must be typewritten and suitably bound. No work that has been previously published will be considered in competition. The name of the writer must be enclosed in a sealed envelope, on which must appear a motto corresponding with one on the accompanying dissertation. The amount of the prize for 1910 is $500. Dissertations will be received until April 14, and high value will be placed on original work.

February in the Canal Zone.—The report of Col. William C. Gorgas, Medical Corps, U. S. Army, chief sanitary officer of the Canal Zone, calls attention to the death rate of 10.98 per 1,000 for February among employés, which is the lowest rate since the beginning of work in the Canal Zone. The February death rate for 1906 was 43 per 1,000; for 1907, 25.62 per 1,000, and for 1908, 12.72 per 1,000. A similar marked reduction is noted in the death rate in the entire population of the Canal Zone, which has decreased from 40.20 per 1,000 in 1905 to 18.59 per 1,000 in February, 1909. The amount of illness among employés has decreased from 1,116 daily in January to 951 daily in February. During January there were admitted to the hospital 1,258 employés ill with malaria, and during February only 852. During the month no case of yellow fever, plague, or smallpox occurred on the isthmus.

CANADA

Graduating Exercises.—At the graduating exercises of the Medical Faculty of the Western University, London, Ont., April 23, a class of 26 was graduated.

Subscription for Tuberculosis Hospital.—Citizens of Brantford have subscribed $7,000 of the $15,000 required for the establishment of a hospital for the treatment of tuberculosis in that city.

Nostrums Must Be Stamped.—The order has been passed in the council extending from April 15 to May 15, the time allowed for the issuance of stamps by the internal revenue department to be placed on proprietary medicine manufactured prior to April 1, in compliance with the act respecting proprietary medicines passed by parliament at the last session.

Personal.—Dr. John W. McEachern has been elected president, Dr. James D. Lafferty first vice-president, Dr. William A. Lincoln secretary, and Dr. W. E. Graham treasurer of the Calgary (Alba.) Moral and Sanitary League.——Dr. Fred Jeffery has been appointed chief of the resident staff of the Victoria Hospital, London, vice Dr. Ray Holmes.——Dr. James Mills, Toronto, who was operated on at the Cottage Hospital, April 8, is convalescent.——Dr. George A. Armstrong, Montreal, has returned from Europe.

Honor Professor Wright.—The pupils and colleagues of Prof. Ramsey Wright of the University of Toronto, celebrated the twenty-fifth anniversary of his work as professor in the University April 15 by tendering him a complimentary banquet. The chair was taken by Prof. J. Playfair McMurrich. The toast to the university was presented by Prof. T. R. Lillie of the University of Chicago, and that to the guest of the evening by Dr. T. McCrae of Johns Hopkins University, and an address was presented to Professor Wright by Prof. A. B. MacCallum.

Coming Tuberculosis Conference.—The ninth annual meeting of the Canadian Association for the Prevention of Tuberculosis is to be held in Hamilton May 19 and 20. The chief subjects for discussion are "The Duty of Municipalities in Reference to Tuberculosis," by Dr. White of the Pittsburg Sanatorium; "How One Can Do Most Good in Arresting Tuberculosis at the Smallest Outlay," by Dr. George J. Adami, Montreal; and "The Duty of the People Toward the Movement for the Extermination of Consumption," in which a number of physicians and laymen will participate.

FOREIGN NEWS

Fifth International Congress for Radiology.—The last congress for medical electrology and radiology, held at Amsterdam last September, voted to hold the next congress at Barcelona in Spain, and the date has been fixed as September 13 to 18, 1910. The committee of organization is already at work, with D. Luis C. Salse as president of the committee and congress and D. C. C. Llaberia as secretary, both of Barcelona.

Prison Term for Alleged Malpractice by Prominent Italian Surgeons.—The profession in Italy is in a ferment on account of the sentence recently passed on Professor Galeazzi, chief of the Milan Orthopedic Institute, and his assistant, Anzoletti, condemning them to two and a half months in prison and a fine of about $17 on account of the death of a patient from gangrene after application of a plaster cast for fracture of the pelvis. The medical experts for both sides agreed in ascribing the gangrene to thrombosis in the local veins, but the experts for the parties bringing the suit ascribed the phlebitis to undue pressure from the cast, while those for the defense ascribed it to the effects of the trauma causing the fracture. The latter it seems was not discovered for a week, and the leg had been used a little in the mean time. Italy takes a high rank for orthopedic work, and the Milan institute stands about at the head. The patient in question was a prominent local lawyer, and the *Gazzetta degli Ospedali* remarks that it stands to reason that physicians with such a high reputation for skill and devotion would not be guilty of gross negligence for the first time in such a particularly important case. A number of medical societies have passed resolutions since urging the necessity for reform in the system of medical expert testimony to prevent such a spectacle as the contradictory testimony in this case. They protest against the system which allows an incompetent judge or jury to decide questions that tax even specialist skill and experience. They call on all the medical associations to aid in the effort to secure legislation organizing a "board of medical experts," a *collegio peritale*, which some have been advocating for a long time, to be made up of men whose skill, judgment and impartiality are known to be above all question. The various resolutions adopted are being published in the *Policlinico*, in turn. The *Gazzetta degli Ospedali* of April 15 gives the views of a leading lawyer on the above case, citing the Roman law on malpractice. The "Aquilian law" of damage outside of a contract holds to conduct "becoming a good father of a family." The limit of responsibility is the conduct of a *bonus pater familias*, representing the average good father in the social status in question. The responsibility of the physician is that of the average diligent doctor among his peers. The article adds that the movement of modern life and civilization would be impossible if no act were done except those from which all possible chance of injury has been eliminated with scientific precision. There must be some limit to this exclusion of possibility of damage, and the "Aquilian law" can not apply to all the remote and even infinite limits of the fortuitous case. Where to establish these limits, and how far to stretch the law to apply to them is for the court to decide. For this decision it is necessary to bear in mind the two extremes: on the one side, the solicitude for the patient which should be more scrupulous than any contract could call for; while on the other side, it is evident that this scrupulousness can not be carried to such a point as to take away all means of livelihood or participation in the work of society.

LONDON LETTER

(From Our Regular Correspondent)

LONDON, April 24, 1909.

The Antituberculosis Campaign

At a meeting of the General Council of the Women's National Health Association of Ireland, the wife of the Viceroy, Lady Aberdeen, disclosed a new scheme in the antituberculosis campaign. There are dotted round the coasts of the United Kingdom 68 coastguard stations, placed there for the prevention of smuggling in former times. Modern conditions of commerce, the introduction of steam, etc., has rendered them useless for this purpose, though some of them are used by the admiralty for signaling purposes. It has been decided to convert them into sanatoria for patients suffering from tuberculosis, for which purpose they can readily be adapted. They are commodious, well built, and situated in salubrious localities.

Under the auspices of the National Association for the Prevention of Tuberculosis a popular and educational tuberculosis exhibition has been opened in the east end of London at Whitechapel. It is intended to move the exhibition to other poor districts. The object is by models, diagrams, specimens, and other means, to show to the people the nature of tuberculosis, the extent of its ravages, the possibility of its prevention and arrest, and the methods by which these objects are attained.

The local government board has issued a report by Dr. Eastwood on the American methods for the control of the milk supply. A number of the methods are considered worthy of adoption here. Dr. Eastwood recommends that dairy cows with advanced or generalized tuberculosis should be destroyed, and that milk not provided with a reasonable guarantee of production under sanitary conditions should be excluded from cities. A regulation requiring all milk to be sold under one of three designations, viz., raw, Pasteurized, or officially certified, would be helpful. The possibilities of producing a certified milk on a financially successful basis have not yet been exploited fully. Municipal enterprise in the production of certified milk for the purpose of improving the physique of the poorest class is considered worthy of consideration.

Death Under Chloroform and Workmen's Compensation

Another new point has arisen under the workmen's compensation act. A man in the employment of calico-printers met with an accident. His hand was caught between two rollers and badly crushed. An expectant treatment was adopted and two months later skin grafting was necessary in order to prevent contraction which would have rendered the hand rigid and practically useless. This was done under chloroform and the patient died. The widow applied for compensation but the judge dismissed the claim. An appeal was made to a higher court which reversed the judgment. The principal judge said that it was admitted that the deceased was bound to undergo an operation of some sort. The usual operation would have been amputation of the hand which would have involved administration of an anesthetic and if the man had died counsel for the respondents admitted that the employers would have been liable. Instead of this a skilful surgeon performed an operation which would preserve the hand and render the man not maimed for life but able-bodied, and so relieve his employers from liability. The step taken by the workman in submitting to the operation was not only courageous but in the interest of his employers. The case was therefore sent back to the lower court for the assessment of the amount of compensation.

The Education of Mothers

A novel form of legislation has been introduced into the House of Commons. It proposes to empower local sanitary authorities to assist necessitous women before and after childbirth. The object is to reduce infant mortality by feeding, supervising and instructing poor, ignorant mothers. The local authority is given power to provide food, advice and other assistance for the mother before and for six months after the birth of the child. As a condition it may insist on the mother nursing the child, attending a class for instruction, or refraining from working. The proposal is founded on the experience gained at Ghent where infant mortality was very high. A local-physician, Dr. Miele, started a school for mothers, where women of the working class were given advice and instruction before and after labor and encouraged to suckle their children. The municipality gave a grant of $300 a year to the work and it was found to be much better to feed the mother and encourage her to suckle her child than to facilitate bottle-feeding by supplying humanized milk. The example of Ghent was followed by one of the poorer boroughs of London, St. Pancras, where, as has been stated in a previous letter (The Journal, July 20, 1907, xlix, 253), a school for mothers was founded and led to a great reduction in infant mortality.

The Causation of Dental Caries

The condition of the teeth of our people is appalling; dental caries is practically universal. Investigation shows that at the age of 6 years nearly 100 per cent. of children have carious teeth and that on an average nine teeth are affected. The permanent teeth also rapidly decay; at the age of 14, 85 per cent. of children have caries, and afterward this percentage gradually rises so that only 5 per cent. of adults have a perfect set of teeth. The causes of this deplorable condition have been much discussed in the last few years. Two authorities, Dr. Mary Campbell, who may be described as the most philosophic physician of the day, and Dr. Sim Wallace, a well-known dentist, have urged that the decay of the teeth is due to a faulty mode of diet. Dr. Campbell, who is the author of a monumental work on the evolution of man's diet, has found that before the discovery of cookery little crude starch was taker and this was entangled in a cellulose network which needed abundant mastication. This necessitated an active use of the jaws which tended to their healthy growth and development. Until the agricultural period (which was long after the discovery of cookery) the only source of sugar other than the limited supply of fruits was wild honey. Now man has not only vastly increased his supplies of sugar and starch, but he consumes practically the whole of it in a liquid, pappy, spongy or pultaceous form. This gives the teeth little or no work. Dr. Campbell recommends that when a child begins to cut its teeth it should be given cautiously solid food for which obviously the teeth are intended. The infant should be given well-baked bread-crust which will compel mastication, and chop and chicken-bones to gnaw. Dr. Sim Wallace recommends similar food for infants and for school children, crisp toast, baked bread, or crusty rolls instead of the ordinary white bread. He also recommends that meals should be arranged so that dessert always follows sweets, for fresh fruit cleans the mouth.

Graduated Labor in the Treatment of Tuberculosis

The value of graduated labor in the treatment of pulmonary tuberculosis was pointed out a year ago by Dr. M. S. Paterson, medical superintendent of the Brompton Hospital Sanatorium at Frimley. At the annual meeting of the Royal National Hospital for Consumption, the president, Lord Rosebery, bore striking testimony to the success of this treatment. Many patients had gone through the course of graduated labor with the most satisfactory results. He read the following speech made at the recent Christmas dinner by a patient: "Whatever we may have to put up with in the way of discipline, I know the day will come when we shall be thankful to have undergone it, because of its benefits. I came to the hospital four months ago a wreck, and being given two tens (exercise for ten minutes twice daily) found it quite enough. Now I am doing navvy's work in the quarry, shoveling, sifting and taking barrow loads of stone weighing a couple of hundredweight—heavier work than I have ever done. My weight has increased from 132 pounds to 156 pounds and I am better in health than I have ever been in my life. This is the result of plenty of good plain food, open air and the discipline I have spoken of, and I am only one of hundreds."

A Medical Degree for London Students

The medical degree of the London University is obtained by a very difficult examination which is beyond most London medical students, who generally content themselves with obtaining the combined diploma of the Royal Colleges of Physicians and Surgeons (L.R.C.P., M.R.C.S.). They are unable to use the letters M.D. and are not entitled to be called "Doctor," but are styled "Mr." though the distinction is often not observed, especially by the masses. On the other hand many graduates of the provincial Scotch and Irish universities practice in London and in England generally, who are of course "M.D.'s" and entitled to the designation of Doctor. The majority of the London students are therefore in a position of titular inferiority to these, and though a man's ability as a practitioner is by no means always estimated by his qualification, the fact that he is not strictly entitled to the designation of "Doctor" is some disadvantage in general practice. Now it is contended that the requirements for the conjoint diploma are as stringent as those of many of the universities outside London and that the London students are placed unfairly at a disadvantage. The problem has therefore existed for some years of giving an opportunity of obtaining the coveted medical degree to every student who is worthy of it, but the difficulties have so far been insuperable. The London University has naturally been unwilling to lower its high standard which has given it a pre-eminence over the provincial universities, and the colleges of physicians and surgeons, not being universities, have been unable to grant a degree, which is a university distinction. Some scheme, however, appears now to be in sight. Delegates appointed by the colleges have produced a draft scheme for establishing a joint examination with the University of London. It is suggested that the university should retain all its existing rights as to the granting of degrees but should consent to exercise them as regards pass degrees conjointly with the colleges so far as those students are concerned who shall have complied with such conditions as the university and the colleges may determine. Thus the university would continue to grant independent degrees, which might be designated as "honors" degrees, thus meeting the views of those who maintain that the present degrees of the university are of an "honors" standard.

PARIS LETTER

(From Our Regular Correspondent)

Paris, April 22, 1909.

The Reactions of Revaccination

Before the Academy of Medicine, April 20, Professor Kelsch, director of the Superior Institute of Vaccine of the academy, made in his own name and in that of his collaborators, Camus and Tanon, a communication on revaccination and its effects. Very frequently when a revaccination does not show at the point of inoculation a pustule equally defined with that of a primary vaccination, one is led to believe that it has been ineffective. Again, besides the classical pustule, there are other manifestations of vaccinia: the papulo-vesicle, the papule and the macule, reddish and slightly indurated. These papules and macules are more prompt to manifest themselves, but at the same time they are more fugitive than the frank papule of the first vaccination. They must, therefore, be observed very closely, for if the subject is examined five or six days after the revaccination there is a risk of their prior disappearance. They are not, as is sometimes thought, local inflammatory reactions, due to the prick and coming from the microbes of the vaccine or from the skin of the subject, but they constitute real manifestations of vaccinia.

The statistics of revaccination, therefore, must take into account these very important results, and not rest content with mentioning simply positive or negative results. Fresh ministerial instructions, moreover, have taken note of this. The results of revaccination will appear in a form that will be more conclusive when a precise description of the characteristic lesions obtained is mentioned.

The statistics furnished by Professor Kelsch, based on 2,683 revaccinations made between July 1, 1905, and April 5, 1909, have given for 1,539 cases that it has been possible to follow up, 37 pustules of the type of primary vaccination; 315 papulo-vesicles; 912 papules; 169 macules, reddish and slightly indurated. In 108 cases only there has been no reaction, which gives a truly minimum proportion of 6 per cent. of failures.

Kelsch and his collaborators have demonstrated that the organism, far from becoming refractory to the impressions of the vaccine by successive inoculations, is, on the contrary, rendered hypersensitive—anaphylactized; frequently the more the subject has been revaccinated, the more precocious and the lighter are the manifestations of the vaccine, in accordance with the law of anaphylaxis. It is of importance that the public should be made acquainted with the principal forms of the eruption induced by vaccinal reinoculation, for many persons refrain from revaccination in the belief that they are refractory because it does not produce pustules in them.

Dr. Roux, director of the Pasteur Institute, is in accord with this belief, and thinks that it would be opportune to publish illustrations representing exactly all the cutaneous reactions consequent on revaccination. Such an atlas would be of great general utility.

The Laboratories of the Paris Hospitals

The Municipal Council of Paris has decided to raise the subsidies for medical studies, in order to improve the work of the laboratories of the hospital services of the city of Paris; but the increase voted at the end of the year being insufficient, a new credit is about to be given to the chiefs of medical staffs (*médecins chefs de service*). The sum total of 17,500 francs is to be so used. Among the services designated to profit by the subvention is that of Dr. Béclère, who has created a laboratory intended, first, for the examination of patients by radioscopy and radiography; second, for the treatment of suitable cases by radiotherapy and radiumtherapy; third, to the study of medical radiology, which has been taught there daily for ten years. Dr. Béclère has, moreover, collected a most complete library of radiology, in which are to be found all the French and foreign publications relative thereto, as well as a museum containing mouldings (*moulages*) of cases before and after treatment. The subvention will also be granted to Dr. Pierre Marie, physician to the Hôpital Bicêtre, to enable him to pursue his studies on the pathologic anatomy of aphasia. Another subvention is to be granted to the laboratory at the Hôpital Saint-Louis, which forms an important school for dermatologic studies. Thanks to this grant, other hospitals—Lariboisière, Tenon, Bichat, Andral, the Hospital for Sick Children, Trousseau, Necker—will be able to perfect their radiographic services.

International Conference on Cancer

The bureau of the International Congress on Cancer assembled at Berlin, has decided that the next International Conference on Cancer shall meet at Paris, at the end of September, 1910. It will probably be presided over by Professor Bouchard.

BERLIN LETTER

(From Our Regular Correspondent)

Berlin, April 14, 1909.

Examination for Dentists

The regulations for the examination for licensing of dentists, which will not be published officially for several weeks, are as follows: Before taking the examination for a dentist's license, the candidate must pass a preliminary examination. The candidate for the preliminary examination must prove that he has graduated from a German secondary school (*Gymnasium, Realgymnasium* or *Oberrealschule*) and that he has attended a dental school of the German Empire at least three half years since graduation from the secondary school. The examination includes anatomy, physiology, physics, chemistry and dental mechanics and occupies nine days. The candidate for the dental examination must show that he has passed the preliminary examination, has studied at dental institutes of the German Empire at least seven half years, and at least three years after having fully passed the preliminary dental examination, he has taken a clinical course of at least two half years on the conservative treatment of the teeth and a course of equal length in mechanical dentistry, has attended regularly a policlinic for diseases of the teeth and mouth, for three months each has attended the clinic or policlinic for diseases of the skin and syphilis, and has taken a course on methods of clinical examination. The parts of the examination in which the candidate has failed may be taken again after from two to six months at the option of the licensing board. Any one who does not pass the second examination is not admitted to a further examination. A medical license granted by the German Empire entitles the holder to take the dental examination on furnishing proof that for at least two half years he has taken a course in dental mechanics and a clinical course in the conservative treatment of the teeth and has regularly attended a policlinic for diseases of the mouth and teeth. At the dental examination he need only pass the examination in diseases of the mouth and teeth, in the conservative treatment of the teeth, and in the surgery of the mouth and teeth and in mechanical dentistry, in addition to the prescribed examination in mechanical dentistry of the preliminary dental examination.

Certificates for Quacks and Nostrum Makers

Quacks and patent medicine manufacturers often attempt to secure greater credibility in the eyes of the public for the testimonials for their alleged cures by obtaining a certificate of the genuineness of the signature of the patient, given by police authorities, mayors or other officials. The official certificate in these cases is frequently given in such a form as to create the impression that it guarantees the genuineness of the entire contents of the testimonial which is naturally very advantageous for fraudulent purposes. The ministers accordingly direct that as it is very undesirable in the interest of the public health that the business of quacks and nostrum dealers so injurious to the public should be promoted by the officials, even in appearance only, the officials in testimonials of this sort shall distinctly confirm the genuineness of the signature merely and avoid every other interpretation of the certificate.

The Campaign Against Alcoholism

By ministerial order of March 3, the distribution of leaflets for instruction regarding alcoholism is directed. These leaflets are to be distributed by the vaccinators with the certificate of vaccination and also by the district physicians in their visits to schools and conferences with teachers. The leaflets are furnished at the rate of 50 cents per 1,000 by the business station of the German association against the misuse of spirituous beverages. In a communication to the German Aerzte-Vereinsbund the supreme lodge of the order of Good Templars opposes the giving of medical recommendations of liquors as they are being spread broadcast by a number of firms for advertising purposes. Physicians should avoid recommending the various wines, beers and whiskeys, and should forbid advertisers to add the sentence, "recommended by physicians," without an express permission has been granted for it. The Berlin central association for the campaign against alcohol announces in the month of April a scientific course for the study of alcoholism, together with an inspection of social hygienic institutions, under the direction of Professor Rubner.

Welcoming Congresses

I have previously referred to the unnecessary expense to which municipalities are put in entertaining congresses of various sorts. Happily the managing committee of the German Städtetag (a meeting of delegates from various cities) has formulated some principles that are intended to mitigate this nuisance. The omission of entertainments is recommended. A festal welcome should be given only to those associations that are invited by the cities and which can claim especial attention for themselves. The ceremonies of welcome should be restricted as much as possible. Of the same tenor is the edict of the imperial chancellor in which a restriction of participation by officials in the proceedings of scientific societies is directed.

Pharmacology

CERTAIN PRODUCTS OF THE ORGANIC CHEMICAL MANUFACTURING COMPANY

Report of the Council on Pharmacy and Chemistry

An investigation by Dr. Torald Sollmann appeared as a report of the Council in The Journal, Sept. 5, 1908, p. 818, under the title, "Formaldehyd Derivatives; Their Fate and Action in the Body, Together with Observations on Some Other Urinary, Intestinal and Wound Antiseptics." In this paper Dr. Sollmann showed that the claims made by the Organic Chemical Manufacturing Company for certain of its products were incorrect. The accuracy of Sollmann's findings was denied by the Organic Chemical Manufacturing Company, who issued a pamphlet in which appeared a report by Messrs. Sadtler & Sons, challenging Sollmann's results, and which pamphlet was endorsed by Dr. Henry Beates, Jr.

In accordance with its regular procedure, the Council appointed a referee with instructions to investigate the matter and report to the Council. The referee submitted to the Council letters from Messrs. Sadtler & Sons, Dr. Henry Beates, Jr., and Dr. Torald Sollmann, together with his own investigations and his report on them. The report of the referee follows: the report, together with the letters of Messrs. Sadtler & Sons, Dr. Henry Beates, Jr., and of Dr. Torald Sollmann in full are issued in pamphlet form.[1]

W. A. Puckner, Secretary.

REFEREE'S REPORT

The referee appointed to review the action of the Council on Pharmacy and Chemistry in refusing recognition to certain products of the Organic Chemical Manufacturing Company, submits the following report:

The action of the Council was based on Professor Sollmann's investigations of the products in question, the report of which was submitted to the Council and published in The Journal of the American Medical Association, Sept. 5, 1908.

In a printed pamphlet dated Sept. 15, 1908, the Organic Chemical Mfg. Co. claims to prove not only that Professor Sollmann's report is grossly erroneous and misleading, but that it is also unfair and dishonest. The last four pages of the pamphlet consist of a report from Samuel P. Sadtler & Son,[2] a Philadelphia firm of analytical and consulting chemists, in which Dr. Sollmann's most damaging statements concerning the so-called formasal products of the Organic Chemical Mfg. Co. are contradicted and severely criticized. As the report of this firm contains the only evidence brought out against the validity of Dr. Sollmann's conclusions concerning the products of that company, it is chiefly the substance of that report which now constitutes the points at issue.

The extravagant claims and the accusations and insinuations of the pamphlet itself to which is attached the name of S. Lewis Summers, the president of the concern, need not engage the attention of the referee nor the attention of any member of the Council, including Dr. Sollmann, until it has been determined whether Dr. Sollmann's report to the Council or the report of Samuel P. Sadtler & Son to the Organic Chemical Mfg. Co. is in accordance with the facts.

Henry Beates, Jr., president of the *Pennsylvania* State Medical Examining Board, seems to have experienced no difficulty in reaching the conclusion that the attack of the Organic Chemical Mfg. Co. on the Council on Pharmacy and Chemistry, and especially on Dr. Sollmann, is abundantly justified by the facts. His endorsement of the report of Sadtler & Son is printed in heavy type on the first page of the pamphlet issued by the Organic Chemical Mfg. Co.

In reply to the referee's inquiry of Dr. Beates as to why and how he came to lend his name in support of the literature issued by that company, a long communication[3] was received setting forth the remarkable merits of the products manufactured by the Organic Chemical Mfg. Co. Dr. Beates further gives the personnel of what he calls a "committee" which he appointed, and together with whom he visited the establishment where the products are made.

[We learn that the gentlemen referred to by Dr. Beates as composing the "committee," state that it is a misunderstanding as to there having been a committee; that they merely made a visit to the plant by invitation, looked at it and went away; that while interested in what they saw they made no statement other than one of courteous interest.—Ed.]

The substance of the conclusions, as stated by Dr. Beates, was that "the committee had every reason to feel convinced that true active chemical compounds were being manufactured."

So far as the Council on Pharmacy and Chemistry is concerned, it is manifestly unnecesary for the referee to make any comments on these conclusions. As this report may be published, however, the referee wishes to take this occasion to make a few elementary comments. The essential claim made for the products of the Organic Chemical Mfg. Co. is the same as that made for many other proprietary preparations, namely, that they are chemical compounds made by chemical combination of therapeutically valuable ingredients which are again set free and develop their valuable properties just where they can do the most good inside the human organism. Such plausible claims appeal of course to the laity and to physicians as well, and are extensively exploited by manufacturers of all kinds of worthless products as well as by manufacturers of products which may have some merit. Even physicians do not seem generally to know that because, say formaldehyd, or iodin, or salicylic acid, is used in the preparation of a compond it does not at all follow that such ingredients are easily obtainable from it. Because sugar contains the formaldehyd group and salt contains the element chlorin, it does not follow that sugar and salt will set free these active chemicals within the body. It is clear that all kinds of frauds can enter into such claims for the liberation of active ingredients. The ingredients may or may not be there; if there, they may or may not be there in chemical combination, and if there in chemical combination they may or may not be set free by any agency at the command of the animal body.

The conclusion of Dr. Beates' "committee" that they saw true chemical compounds being manufactured may be all right. There certainly is no reason for denying it, for no one, so far as the referee knows, has denied that at least some of the products of the Organic Chemical Mfg. Co. are more or less pure chemical compounds. It is manifest that Dr. Beates' private "committee" has contributed nothing that is of any use to the referee.

In other parts of his letter Dr. Beates offers sundry pieces of evidence showing that the "formasal products" break up within the human body. This evidence consists of statements which he has borrowed directly from the literature of the Organic Chemical Mfg. Co., or from the report of Sadtler & Son. His statements are therefore either worthless or superfluous, for the evidence submitted by Sadtler & Son does not improve on passing through the editorship of Dr. Beates or of Dr. Summers, and when writing that letter to the referee Dr. Beates knew that the evidence of Sadtler & Son was being investigated by the referee at the request of the Council on Pharmacy and Chemistry.

Finally, as to Dr. Beates' clinical results achieved by means of the formasal products: These may or may not be able to stand close investigation and repetition. Whether they do or not is not important at the present juncture. The chief basis on which the products of the Organic Chemical Mfg. Co. were refused recognition was that unwarranted—because unproved—statements were made concerning their "gradual cleavage in the human body" and repetitions of such claims by the president of the Pennsylvania State Board of Examiners can not be accepted as a substitute for evidence as to the truth of such statements.

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[1] The complete pamphlet may be had on receipt of a stamped addressed envelope.

[2] These four pages are reproduced in the complete pamphlet which may be had on receipt of a *stamped addressed envelope*.

[3] Dr. Beates' letter appears in the complete pamphlet.

So far as the referee can judge from his letter, Dr. Beates has confused his hostility to various persons, including some members of the Council on Pharmacy and Chemistry, with his belief in the products of the Organic Chemical Mfg. Co. In no other way can the referee explain his dark hints as to politics, conspiracies, persecutions and bribery, or his unqualified approval of the slanderous pamphlet issued by the manufacturer of the "formasal" products, or his failure to recognize that loose and irrelevant suggestions of fraud could not do the "formasal" products any good in the eyes of any competent referee.

The "formasal" products were refused recognition by the Council because its first referee, Dr. Sollmann, found that the manufacturer had not proved the claim that these substances break up into their respective constituents within the human organism. Dr. Sollmann tried to verify the statements of the manufacturer, but obtained results which made it seem very clear that the manufacturer could not have even seriously attempted to prove that the formasal products yield appreciable quantities of formaldehyd or salicylic acid, or other active decomposition product within the body.

On receiving information of the action of the Council and a copy of Dr. Sollmann's report, the president of the Organic Chemical Mfg. Co. began, evidently, for the first time, to bestir himself in the direction of attempting to demonstrate the truth of his proclamations concerning the behavior of the formasal products within the human organism. To repeat his own words: "The report sent us as being that of Torald Sollmann is dishonest and within ninety days we shall prove its incorrectness beyond a question of a doubt." As a result of this remarkable decision, we have the report of Samuel P. Sadtler & Son to the Organic Chemical Mfg. Co. of Sept. 10, 1908.

According to this report Sadtler & Son seem indeed to have found no difficulty in proving the essential point which the manufacturer wanted them to prove and which he should have proved before submitting the formasal products to the Council on Pharmacy and Chemistry, namely, their decomposition into formaldehyd and salicylic acid within the human body. Sadtler & Son write: "Proving this dissociation we have found to furnish no difficulties other than is necessitated by a more detailed analysis of the urine of people taking these remedies in prescribed doses."

The detailed urine analyses to which Sadtler & Son refer are described as follows:

> "Sample sent by Dr ——— from patient (P. D) taking 140 grains of ur-a sol per day
>
> "Day's sample was 1,030 c c. This was made slightly alkaline with sodium carbonate and extracted with ether to remove neutral substances After making acid with hydrochloric acid
>
> "Ether extract, 0 5170 grams (7.50 grains)
>
> "This sublimed in needle crystals, gave a strong $FeCl_3$ test and had the melting point of salicylic acid
>
> "The residue was then boiled with caustic soda solution and any possible basic principles extracted with ether and discarded The residue was then made acid with hydrochloric acid and extracted again with ether
>
> "Second acid ether extract, 0 4664 grams (7 0 grains)
>
> "This responded to the same test when the sublimed needles were taken."

It will be seen that Sadtler & Son have endeavored to distinguish between the undecomposed methylene di salicylic acid of the ur a-sol and the free salicylic acid which should be present in the urine if the disalicylic acid is decomposed in passing through the organism. They purified the ether extract by subliming it and found that the product so obtained gave the ferric chlorid reaction as well as the melting point of salicylic acid.

These tests they fortified by showing that the solubility of salicylic and methylene-di salicylic acid in benzol are very different and may be used as a means for distinguishing between the two

If these tests of Sadtler & Son could be accepted as proving this crucial point, the decomposition of methylene-di salicylic acid, there would be little need for further discussion. The referee would then move for a reconsideration of the Council's action on the formasal products. Unfortunately, the tests as described above by Sadtler & Son have no value and seem to represent only an extremely uncritical piece of commercial work. As this statement is a rather severe criticism of the work of Sadtler & Son, and since the essential point of the whole controversy is involved in it, it will be necessary to go into this matter in some detail. The referee will, however, be correspondingly brief when discussing the less consequential points raised by Sadtler & Son.

As evidence bearing on the subject, the referee has a communication from Sollmann[4] describing a repetition of the experiments described by Sadtler & Son. This communication from Sollmann the referee forwarded to Sadtler & Son in order to give them every opportunity to prove their point Sadtler & Son availed themselves of this opportunity, and so far as Sollmann is concerned, they are therefore having the last word.

Sollmann's subject took in a day 10 gm. ur a-sol, and he obtained from the corresponding acidified urine 0 47 gm of ether extract. This residue gave the ferric chlorid reaction, but it showed neither the solubility nor the melting point of salicylic acid.

In these tests Sollmann omitted one point: he did not test the melting point of the sublimed urinary residue, as Sadtler & Son had done. Sollmann gives an excellent reason for not following Sadtler & Son in this respect. He found the pure methylene-di-salicylic acid breaks up and yields salicylic acid when heated until a sublimate is obtained

In this manner Sollmann proves as definitely as any referee would be likely to require that the findings of Sadtler & Son, as described in their report to the Organic Chemical Mfg. Co, are "based on false premises."

It was a matter of considerable interest to the referee to see what Sadtler & Son could say to this damaging fact brought out by Sollmann.

In their communication[5] to the referee is found the following paragraph:

> "Sollmann's criticism of the testing sublimates obtained by strong heating is quite just. We only did this once, and while the practice was indefensible on theoretical grounds we believe we only fell into it because an ether extract showed such a mass of low temperature sublimated needle like crystals that it did not take a temperature that would break up methylene di salicylic acid We certainly would not have tried such, as we have been familiar with this acid for five or six years, as we had tested this acid for Dr Summers about that long ago"

Sadtler & Son is to be given credit for having thus frankly admitted a blunder of fundamental importance in the point at issue In their remaining discussion on "the presence of salicylic acid in urine," Sadtler & Son "hedge" and explain and shift the ground with some dexterity, but they fail to "make good" on the essential point. Take this paragraph·

> "We would not expect to have it so decomposed as to give a sublimate of salicylic, as we had devised a test for the analysis of acetyl methylene di salicylic acid in which the salicylic acid is obtained by heating with fused caustic potash to 250 C, and we found that it had to be heated well up to that temperature to complete the elimination of the formaldehyd residue This test we have reported to the Organic Chemical Co, but not as yet published In this case it merely tends to show that methylene di salicylic acid does not break up with any great ease, when heated"

The stability of the salt of an acid in hot caustic potash has no particular bearing on the stability of the free acid. Sadtler & Son might as well have tried to prove that carbonic acid or chloric acid is stable because potassium carbonate and potassium chlorate can withstand considerable heat.

On another page we find the following paragraph which evidently is intended to prove that it is permissible to use the sublimates in determining whether the urine contains salicylic or methylene-di-salicylic acid:

> "The four printed pages of our report appearing in Dr Summer's pamphlet did not contain all the points that we observed in mak ing our tests One of them is that in the test we here described and in several other analyses of urine from people taking Ur a sol we found to take place, what we have only noticed with very easily sublimable compounds such as salicylic and benzoic acids, namely that as ether was driven off from an extraction, the walls of the flask were covered with crystals In one case we tested these crystals as to melting point and found them to be salicylic acid We

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[4] Dr. Sollmann's communication appears in the complete pamphlet

[5] The communication from Sadtler & Son to the referee appears in the complete pamphlet.

> know from having *evaporated* etherial solution of methylene-di-salicylic acid that it does not sublime at such low temperatures. We have also found that by heating both acids, viz., salicylic and methylene-di-salicylic, in flasks in an oil bath that salicylic acid sublimes very noticeably at considerably below 100 C., while methylene-di-salicylic acid did not sublime at all at temperatures to which we heated the bath, which happened to be 170 C."

Why Sadtler & Son should insist on using the subliming process in the treatment of their ether extracts after Sollmann has shown how elusive it proved in this case and in their own hands—that they have not *attempted* to explain. Sollmann has, of course, had no opportunity to reply to the statements contained in the above paragraph.

It may be added that the "experience" of Sadtler & Son as to sublimates deposited on the flasks when urinary ether extracts are evaporated does not agree with that of the referee, who has frequently seen such sublimates *obtained* from urines where there was no occasion to look for salicylic acid. As a matter of fact, the referee obtained it from his own urine after taking ur-a-sol just as he has often obtained it before when not taking ur-a-sol. Sadtler & Son, in the above paragraph, say that they once tested such a sublimate from a ur-a-sol urine as to its melting point and found it to be salicylic acid. But the melting point of such an unpurified sublimate has little if any value, and Sadtler & Son say nothing about the *ferric chlorid reaction* of those particular crystals. The referee did apply this reaction to his sublimate and was thus able to exclude salicylic acid. The reaction was entirely negative.

To quote again from Sadtler & Son's communication to the referee:

> "As to what Sollmann says of the quantitative separation of methylene-di-salicylic acid from salicylic: It will be noticed that Sollmann only speaks of extracting with ether in the way we spoke of on page 13. A very important part of what we did was briefly described, chiefly on page 14, as follows: 'The residue was then boiled with caustic soda solution and any possible basic principles extracted with ether and discarded. The residue was then made acid with hydrochloric acid and extracted again with ether.'
>
> "'Second acid ether extract, 0.4664 grams (7.0 grains).'
>
> "'This responded to the same test when the sublimed needles were taken.'
>
> "It was this second extraction, after we had gotten out all the acid principles the first time, that we obtained by boiling with alkali. We have not been able to ascertain just what the compound is which is soluble in water but insoluble in ether until boiled with caustic soda and then gives rise to salicylic acid (or if this is objected to, to bodies closely resembling salicylic acid). It is not methylene di salicylic acid, as that would have been easily extracted with ether. We believe it to be salicyl-uric acid for various reasons and, if it is, it demonstrates the work of the drug, as it is claimed to be a uric acid solvent. This, however, is not our concern, as in the present paper we are only desirous of substantiating our tests as reported to the Organic Chemical Co. The fact remains that each time we have carried out this test, we have apparently found more salicylic acid in this combination. Dr. Sollmann does not refer to this at all, and if he admitted it, we believe he would have to admit the action of the preparation, as the salicylic acid which is supposed to come from the methylene compound is supposed to be therapeutically active and just such a combination as we have found would be expected."

Here Sadtler & Son have a point against Sollmann. The latter did not go beyond the ether extraction in the acidified urine. On the other hand, there was no apparent reason why any such procedure should be adopted. And as is seen from the above paragraphs, Sadtler & Son do not now, on the basis of the last two extractions, claim the presence of free salicylic acid in the urine. They are now discussing some unknown "compound," which, on boiling with alkalies, gives rise "to bodies closely resembling salicylic acid." The unproved and improbable hypothesis as to "salicyl-uric acid" may furnish Sadtler & Son with an interesting topic for further investigation, but has nothing to do with the practical point at issue. The referee, passing *judgment on the basis for the Council's* decisions concerning the formasal products, could fairly have left out of consideration the new turn which Sadtler & Son introduce in the shape of this salicyl-uric acid compound. He decided, however, to determine for himself how much basis Sadtler & Son had for advancing such a hypothesis and he regrets to say that here again he failed to find any evidence worthy of serious consideration.

It is clear that in order to demonstrate the presence of any salicylic acid compound in the ur-a-sol urines which is soluble in ether only after being decomposed by boiling alkalies one must be sure that he has first extracted all the methylene-di-salicylic acid which the ur-a-sol urines admittedly do contain, before he boils the remainder with alkali. This Sadtler & Son did not do. They simply assumed that any methylene-di-salicylic acid present "would have been easily extracted with ether." This assumption is unwarranted. It is also inexcusable since by means of the ferric chlorid reaction one can determine with very little work when the ether extracts no longer take up any more substance giving the characteristic color reaction.[6]

Working with 200 c.c. of acidified ur-a-sol urine the referee found that it took seven extractions. Sadtler & Son worked with fully four times as large a volume and made no check as to when the extraction was finished.

The conclusion is clear. The new evidence introduced by Sadtler & Son is worthless. When acidified ur-a-sol urine is thoroughly extracted with ether subsequent boiling with alkali sets free no weighable salicylic acid. Sadtler & Son, it will be noted, obtained, almost half a gram. The referee obtained perhaps a few tenths of a milligram, i. e., barely enough for one rather faint color reaction. Incidentally it may be remarked that the uric acid fell out in perfectly typical fashion from the ur-a-sol urine after the addition of hydrochloric acid. The referee's ur-a-sol urine was obtained by taking 8.5 gm. of ur-a-sol in the course of about ten hours.[7] *The urine obtained in the course of twenty-four hours was very rich in methylene-di-salicylic acid or unchanged ur-a-sol but contained at most only traces of salicylic acid.* This essential point the referee has proved in the following manner:

Ur-a-sol is almost completely insoluble in dilute hydrochloric acid; salicylic acid is soluble. Consequently by merely adding enough hydrochloric acid to the urine to make a 1 per cent. solution the expected phenomenon happens, a precipitate comes down at once. This precipitate is very soluble in ether, is very little soluble in benzol and gives the ferric chlorid reaction.

The acidified urine was kept at 5 C. over night and filtered. To the filtrate was added sodic hydrate equivalent to the previously added hydrochloric acid. The filtered urine so obtained gave only an exceedingly faint reaction with ferric chlorid. *To be specific it gave less of a color than the original* urine diluted forty times. As the filtrate represented urine diluted with one volume of liquid this observation proves that less than one-twentieth of the substance giving the color reaction with ferric chlorid is left in the filtrate. It is certain, therefore, that less than 5 per cent. of the product in the urine could be salicylic acid. How much, if any, of this 5 per cent. actually is salicylic acid is of course immaterial.

In the light of this positive demonstration that the substance which gives the ferric chlorid reaction in ur-a-sol urines is not salicylic acid it is useless to make this report unnecessarily long by going into detailed refutals of the several smaller points raised in the report of Sadtler & Son. In Dr. Sollmann's report to the referee will be found adequate replies to every point.

The referee will, therefore, only very briefly touch on a few points. (1) As to the solubility of salicylic acid and methylene-di-salicylic acid in benzol. The fact that Sadtler obtained a positive color reaction with his "one minute" benzol extract of the urinary ether extract proves not that the substance consisted of salicylic acid, but that the reaction is also obtained with ur-a-sol. The referee obtained a positive reaction with ur-a-sol when he followed Sadtler's directions. The reaction is, however, much weaker with ur-a-sol or with the urinary extracts than with salicylic acid. *Incidentally*, it may be said that Sadtler's procedure is more complicated than is necessary and correspondingly less reliable. The use of alcohol can advantageously be omitted. If ur-a-sol be shaken one minute with benzol and a little of the filtered benzol is poured directly into a very dilute ferric chlorid solution and shaken a very decided color reaction is obtained in the aqueous solution. Why diminish the reaction by the addition of alcohol?

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[6] To test the ether solution it is only necessary to pour some of it in a test tube containing a little *very* dilute ferric chlorid solution and shake. The aqueous solution assumes a color proportionate to the amount of methylene-di-salicylic acid in the ether.

[7] Having myself taken this quantity of ur-a-sol I *feel justified* in saying something concerning the taste of the stuff, although this is a point that hardly deserves the discussion it has received in the appended communications. The taste of a drug to a healthy person who takes it as an experiment is apt to be very different from the taste to a person who is sick and who believes or hopes that the drug will cure him. To me the stuff called ur-a-sol was *very disagreeable, and I had the taste of it* in my mouth the entire day. Only once did it have any nauseating effect. That again is, however, largely a matter of personal idiosyncrasy.

It will be noted that Prof. Sadtler now admits a more pronounced salicylic taste (p. 12). It is rather curious that he should have obtained this impression from less than a gram, but not from a "pinch" of the product which has such a slight solubility as ur-a-sol.

(2) The Organic Chemical Mfg. Co. has made all the capital it could out of Professor Sadtler's accusation that Dr. Sollmann had erroneously quoted Fränkel as to the behavior of methylene-di-salicylic acid in the human organism. Fränkel has settled this point in favor of Sollmann.

(3) The question as to formaldehyd liberation when the formasal products are treated with various reagents (water, acids and alkali) has lost its significance since we now know that no salicylic acid is split off when the products pass through the human organism. To quote from the original report of Sadtler & Son "If salicylic acid is found so abundantly in the urine when acetyl-methylene-di-salicylic acid (ur-a-sol) is taken, it is evident that a corresponding amount of formaldehyd was liberated." That no formaldehyd is liberated is now equally evident from the demonstrated absence of salicylic acid from the urine.

The referee has gone over the tests made by Sollmann and by Sadtler & Son (except the phenyl hydrazin test which it seemed not worth while to take up) as to the liberation of formaldehyd by ur-a-sol, sodiformasal, iodomuth and guaialin. In view of the sensitiveness of these color tests it is entirely losing sight of the essential point at issue to dispute as to which test is more sensitive or more reliable. If formaldehyd were split off there would be no trouble about getting abundant tests and all results short of most decided positive ones are really negative in so far as any practical point of view is concerned. As a matter of fact, however, none of the products split off any formaldehyd when treated with water, hot or cold, or with dilute acid or alkali. Sollmann's original report is therfore correct and the findings of Sadtler & Son are erroneous.

Sollmann's later tests as reported to the refree give traces or "fair traces" by the Jorissen test when by Sollmann's original test they were entirely negative and by Sadtler's tests distinctly positive. Sollmann's faint reactions as reported to me are due, in the opinion of the referee, to the fact that he reversed the order of adding his reagents. What Sadtler's "distinct" or "strong" tests are due to, the referee does not know. When properly made the Jorissen test gives entirely negative results.

As to the tests used by Sadtler & Son and involving the use of concentrated sulphuric acid the referee entirely agrees with Sollmann who says that such tests are not adapted to prove the formation of formaldehyd under the influence of water or very dilute acids and alkalies. Sadtler's reply to this criticism of Sollmann is rather disingenuous: "How Dr. Sollmann can read into my description of my tests the idea that any of the substances in solid form were put into strong sulphuric acid I do not see, and yet that is what he is apparently talking about."

No, that is not what Sollmann is talking about. Placing "the substance to be investigated in contact with concentrated sulphuric acid" does not imply that the substance must be added in solid form. It also covers the conditions of Sadtler's experiments of adding the solution of a substance to be investigated in contact with concentrated sulphuric acid.

(4) For the sake of completeness the referee ought perhaps to explain the findings of Dr. Latham Clarke, whose report the Organic Chemical Mfg. Co. has quoted so ostentatiously in behalf of their contention that the taking of ur-a-sol gives rise to salicylic acid in the urine. Dr. Clarke was engaged by that company for the purpose of working out a practical method of manufacture of a certain product. On the last day of his engagement in the shop of that company Dr. Clarke was asked to test a "ur-a-sol" urine for salicylic acid. He did so and obtained positive results. The method consisted of passing compressed steam over the dried urine residue and testing the solution so obtained by means of ferric chlorid. No attempt was made to determine whether methylene-di-salicylic acid would not also go over with steam. *The test was therefore, of course, not conclusive and Dr. Clarke authorizes the referee to say that he is no longer willing to stand for the validity of the test and further that he very much regrets that his name was ever connected with it.*

(5) As to the antiseptic properties of ur-a-sol, Sadtler & Son sent the referee a small sample of ur-a-sol urine which gave a fair ferric chlorid reaction. Twelve hours after this urine was received it began to grow cloudy and in the course of two or three days a considerable deposit had formed. The usual decomposition resulting in the formation of ammonium carbonate and a characteristic odor did not set in. The referee's own ur-a-sol urine behaved in the same manner, while a sample to which he added a little chloroform remained clear. Essentially similar results were obtained by adding ur-a-sol directly to a fresh sample of urine.

(6) Finally it should be said that the letter to the Organic Chemical Mfg. Co. from the secretary of the Council on Pharmacy and Chemistry with regard to the rejection of its products might have been more full in which case it undoubtedly would also have been more accurate. The brevity and the inaccuracy of the letter was, however, more than compensated for by the fact that the company also received the full report of the referee. The pamphlet published by the company indicates that the author of it understood very well the import of the details contained in Sollmann's report, yet chose for advertising purposes to confuse the contents of a mere routine letter with the well considered statements of the referee, Dr. Sollmann.

The referee does not recommend reconsideration of the Council's action on the products of the Organic Chemical Mfg. Co.

Correspondence

Serum Sickness

To the Editor:—The increasing interest in serum poisoning, as shown by the recent report of cases, leads me to relate the following personal experience. I am furthermore induced to do so by the possibility herein shown of the sensitive condition far exceeding the usual time limits.

In 1902, I attended a case of diphtheria. I took an immunizing injection of antitoxin of 1,000 units. No inconvenience or rash followed. A few months later my duties brought me into close relation with bubonic plague and I was injected with Haffkine's prophylactic. This is a vaccine. A very severe reaction followed, temperature rose to 102 F., there was much urticaria and general malaise for two days. I looked on this as a toxic and not a serum reaction. In January of this year I was in very close relation to an unusually severe case of diphtheria, in which I administered 108,000 units of antitoxin to the patient, a child of 7. The latter recovered, slight multiple neuritis followed, but no serum symptoms. The hospital interne and myself were both much exposed to infection, and we thought it advisable to take an injection of 1,000 units each. In the case of the interne no results followed. I remained quite well for seven days, when suddenly much painless swelling, in and around the parotid, appeared. This subsided by the next day, to be followed by the sudden appearance of urticaria, distributed much as in herpes zoster, over the course of an intercostal nerve corresponding to the point of injection of the serum. It subsided in the course of a few hours, to be followed at 10 p. m. by an urticarial eruption over every part of the body. The irritation was unbearable as the night advanced, the temperature rose to 102.5 F. The pulse was 160. Vertigo and partial syncope followed any attempt to rise. I think this may be accounted for by the great engorgement of the skin depleting vessels and brain. Toward morning, much relief was obtained by bathing the surface with ammonia and water (about 1-10). The next day was passed in bed in a state of prostration. There was some recrudescence of the urticaria in the evening, promptly allayed by the ammonia. Good sleep followed, and the next day I was well except for some pains in the joints, which persisted for nearly a week.

Now the main interest of the case lies in the fact that in 1902 I was not susceptible to the toxic action of the serum; in 1909 I was intensely so. The serum of the latter date was not toxic in itself, as shown by its lack of action in the case of both patient and interne—ergo it would seem as though I had been activated by the first dose and remained so after a period of seven years.

We clearly need the aid of a careful investigation into the question of time limit. It may well be that my experience was not so exceptional as it appears.

H. D'ARCY POWER, M.D., San Francisco.

Delegates for Pharmacopeia Convention

To the Editor:—In accordance with the provisions of Article VIII, Chapter 1, of the by-laws of the U. S. Pharmacopeial Convention, the president of the convention hereby invites the several bodies, entitled under the constitution to representation therein, to appoint delegates to the first decennial meeting of the said convention to be held in the City of Washington, May 10, 1910.

The attention of all concerned is invited to the following extract from the constitution from Article II on membership:

> SECTION 1. The members of the United States Pharmacopeial Convention, in addition to the incorporators and their associates, shall be delegates elected by the following organizations in the manner they shall respectively provide: incorporated medical colleges and medical schools connected with incorporated colleges and universities; incorporated colleges of pharmacy, and pharmaceutical schools connected with incorporated universities; incorporated state medical associations; incorporated state pharmaceutical associations; the American Medical Association, the American Pharmaceutical Association, and the American Chemical Society; provided that no such organization shall be entitled to representation unless it shall have been incorporated within and shall have been in continuous operation in the United States for at least five years before the time fixed for the decennial meeting of this corporation.
>
> SECTION 2. Delegates appointed by the Surgeon-General of the United States Army, the Surgeon-General of the United States Navy, and the Surgeon-General of the United States Marine-Hospital Service, and by the organizations not hereinbefore named which were admitted to representation in the convention of 1900, shall also be members of the corporation. Each body and each branch of the United States Government above mentioned shall be entitled to send three delegates to the meetings of this corporation. But no such delegates as are provided for in this article shall be members until their credentials shall have been examined and acted on as provided for by the by-laws. Delegates admitted as members at any decennial meeting shall continue to be members of the United States Pharmacopeial Convention until their successors shall have been appointed and admitted as delegates to the ensuing convention, and no longer.

Notification of the appointment of delegates, accompanied by the necessary certification of eligibility as required by Article II, Section 1, of the constitution above quoted, should be forwarded as soon as practicable to the secretary of the Board of Trustees.

HORATIO C. WOOD, M.D., Philadelphia, President.
MURRAY GALT MOTTER, M.D., Secretary of the Board of Trustees, 1841 Summit Place, Washington, D. C.

Miscellany

Care of Weak Infants and Children.—That something more than temporary relief or routine institutional care is necessary to improve the defective vitality of the sick and ailing infants of the poor and combat the influence of their wretched environment is quite evident from the indifferent results obtained from ordinary methods. Dr. Henry Dwight Chapin (*Charities and The Commons*, March 27, 1909) describes the methods adopted by the Speedwell Society in caring for this class of children. The plan followed is the boarding-out system, and the results have been remarkably good considering that bottle-feeding has been employed exclusively. The children have been placed in carefully selected homes in a healthful location. A physician and a trained nurse have oversight of the cases. The foster-mother is instructed in the feeding and care of the baby and receives $12 a month as compensation. Many take a great interest in the work and are very successful in nursing feeble infants back to health. Some tire of the work and others are dropped because of inefficiency, but the aim is to retain the same families in the work so far as practicable. Dr. Chapin says: "The boarding-out method, under careful supervision in the country, is the best plan yet devised to relieve and save these infants. The first series of 121 cases would nearly all have died under ordinary methods of handling and yet nearly two-thirds of them were saved. They were poorly nourished, from bad hygienic surroundings, with various degrees of digestive disturbances from faulty feeding on the bottle, and stationary or losing weight. A large proportion were restored to fair and even vigorous vitality, although kept on the bottle. The greater number of those from three to six months to one year was saved, in the first series nearly three-quarters being the proportion. These are brilliant results considering that artificial feeding and was still of necessity exclusively employed."

Medical Statistics for European Russia in 1906.—The *St. Petersburg. med. Wochenschrift*, March 27, published the vital statistics and public health reports just issued for 1906. The total mortality is stated to have been 29.2 per thousand inhabitants, the births 45.9 per thousand. There were 17,096 civilian physicians, 21,670 "feldshers," 11,032 midwives, 4,917 dentists, and 8,828 pharmacists, to a population of 106,114,589. The number of sick treated in hospitals during the year was 2,458,207, with a mortality of 5.2 per cent. There were 133 asylums for the insane, with 30,671 beds and 566 maternities or obstetric wards with 4,755 beds, and a record of 178,877 deliveries, with a mortality of 0.5 per cent. There are 29 Pasteur institutes, and 19,668 persons were given Pasteur treatment during the year, of whom 106 died. There were 178 medical societies and 44 hygienic laboratories. The total outlay for medical purposes was $38,760,000 (76,000,000 rubles). Of this 7 per cent. was borne by the central and 50 per cent. by the provincial treasuries, 24 per cent. by the cities and 17 per cent. by private individuals and societies.

Appendicitis in Childhood.—In *Hygiea Festband*, Carlson discusses acute appendicitis during the first fifteen years of life on the basis of 47 original cases. He believes that appendicitis is more serious in children than in adults, because it more often passes over into diffuse peritonitis, because changes in the appendix more often are gangrenous and because the septic form is relatively common. The death rate in his cases has been much greater than in the case of adults, the probable reason being that the children have been seen too late for operation. Every child diagnosed to have appendicitis during the first 24 hours of sickness should be operated on before the end of that time. Operation is also indicated during the second 24 hours. During the third, fourth and fifth days operation should be made in every case that does not show definite and persistent signs of improvement; but it is to be remembered that during this later period the operation is technically much more difficult. After the first attack operation should be made in the free interval. The points on which Carlson lays special emphasis are the great danger of appendicitis in children and the necessity of early and correct diagnosis—not an easy task—so that operation may be done as early as possible during the first attack.

Experimental Researches on Some Ferments of the Bile.—G. Bonanno (*Arch. di farm. sper. e sc. aff.*, vii, 466) finds that the bile of the human being, of pigs, dogs, sheep and calves always possesses amylolytic and lipolytic properties, but no proteolytic action. The amylolytic action is stronger in the bile of herbivora than omnivora, while the lipolytic is about the same for all. Bile from either animal after the addition of pieces of duodenal mucosa shows no proteolytic action.

The amylolytic and lipolytic actions of bile are rapid. Heating to boiling destroys and filtering through a Chamberland filter weakens both the amylolytic and lipolytic actions. Bile collected from a permanent, complete fistula in a dog showed no change during hunger nor with variations in diet. The strength of the amylolytic and lipolytic ferments of the bile are about the same as those of the other body fluids, such as the blood, urine and amniotic fluid. Bonanno concludes that the bile is not to be considered as a digestive secretion in itself. Its function is to reinforce the enzymic digestive action of the pancreatic juice, as was advocated by Bruno.

Fatal Intoxication from Helminths.—The *Revista de Med. y Cirugia*, January 10, contains a report by J. T. Arteaga of Havana of a case which at first suggested yellow fever. The patient was a girl of 13; she succumbed in semicoma just as the microscope had revealed innumerable eggs of the ascaris in the diarrheic stool. The diagnosis had previously wavered between yellow fever, hemorrhagic smallpox, pernicious jaundice or poisoning with potassium chlorate. Arteaga states that he has never encountered such severe hemolysis even in ankylostomiasis as in this case of fatal helminthiasis.

Association News

New Railroad Rates Granted

The Committee on Transportation announces that it has secured a special rate of $26.00 from Chicago to Atlantic City and return. These are tourist tickets, on sale beginning June 1, with a thirty day limit, and are sold from the "gateways," as they are called. From other points east and also from western points to these gateways, the previously announced rate of a fare and a half will probably be adhered to. A more explicit announcement will be given next week. Details may also be obtained from the railroads.

The Pennsylvania Lines announce that if tickets are purchased reading via Washington, stop-over of ten days will be allowed on both going and return trip, at Washington, Baltimore, and Philadelphia, provided the tickets so read and are deposited with the agents at those points immediately on arrival.

The Pennsylvania Lines will run the American Medical Special, Chicago to Atlantic City, leaving Chicago at 3 p. m., Sunday, June 6, and arriving at Atlantic City early the next afternoon. The Chicago and Alton Railroad will run a special train from Kansas City and St. Louis to Chicago to connect with it.

NEW MEMBERS

List of new members of the American Medical Association for the month of April, 1909:

ALABAMA

Fielder, J. W., Benton.
Greenwood, H. A., Greeley.

ARIZONA

Palmer, E. P., Phoenix.
Pearson, J. M., Camp Verde.

ARKANSAS

Chesnutt, J. H., Hot Springs.
Reamy, Sandford, Hot Springs.
Strachan, J. B., Hot Springs.

CALIFORNIA

Friedberger, Wiliam, Stockton.
Hawkins, G. C [illegible]
Hutchinson, [illegible]
Lafontaine, I [illegible] cisco.
Lund, G. J., Los Angeles.
Mallory, G. W., Santa Rosa.
Reinstein, A. H., Veterans Home.
Seabolt, Gertrude C., Los Angeles.
Shortlidge, E. D., San Francisco.
Weyer, G. A., San Francisco.
Worthington, Lois, Bakersfield.

COLORADO

Beers, Ida V., Denver.
Hereford, J. H., Cripple Creek.

CONNECTICUT

Harrison, J. F., Stamford.
Maloney, M. W., New Britain.
Lewis, G. F., Stratford.

DELAWARE

Chipman, I. L., Wilmington.
Kraemer, W. H., Wilmington.

DIST. OF COLUMBIA

Butz, A. D., Washington.
Tobin, R. F., Washington.

FLORIDA

Blackshear, E., High Springs.
Ross, W. E., Jacksonville.

GEORGIA

Donaldson, H. R., Atlanta.
Kendrick, W. S., Atlanta.

IDAHO

Callaway, Mary A., Boise.
Lyle, J. M., Peck.
Shepard, J. H., Coeur d'Alene.

ILLINOIS

Aird, A. J., Carterville.
Atherton, C. C., Peoria.
Betts, A. J. Mace, Chicago.
Blankmeyer, H. C., Springfield.
Goodell, F. W., Effingham.
Gould, C. W., Fairdale.
Holland, O. D., Streator.
Hockman, B. F., Sumner.
Holm, Henry, Waukegan.
Huestis, Arthur, Chicago.
Kalowsky, M. J., Waukegan.
Loomis, R. R., Burnside.
Lackner, E., Chicago.
McQuaide, T. L., Pittwood.
Mullen, M. C., Chicago.
Myers, W. F., Coal Valley.
Newman, F. L., Chicago.
Poole, G. W., Danville.
Uehren, W. A., Aurora.
Urban, R. O., Evansville.
Winbigler, E. S., Alexis.
Winsor, R. F., Peoria.

INDIANA

Burkhardt, A. E., Tipton.
Busjahn, F. A., Logansport.
Green, J. W., Albion.
Lisman, W. A., Carlisle.
Luckett, E. R., Marengo.
Peare, R. C., Bellmore.
Redden, T. O., Jolietville.
Reed, L. D., Hope.
Scudder, J. A., Edwardsport.
Sherrer, H. E., Hammond.
Terflinger, F. W., Logansport.

IOWA

Alcorn, W. L., Gibson.
Barber, O. S., Kent.
Battin, J. F., New Providence.
Carpenter, W. E., Tama.
Cleaves, P. B., Cherokee.
Dean, W. W., Sioux City.
Farnham, A. J., Reinbeck.
Gethman, C. C., Eldora.
Hickman, S. R., Eddyville.
Howell, E. B., Tiffin.
Hoyt, L. F., Jefferson.
Lamb, Leslie, Hedrick.
Lambert, E. J., Ottumwa.
Lewis, W. H., Alden.
Linquist, A. L., Stanton.
Loiseaux, T. E., Dubuque.
Lymington, T. J., Ackley.
McEvilly, W. J., Dysart.
Meyers, F. W., Dubuque.
Morton, W. M., Iowa Falls.
Mueller, J. G., Iowa City.
Noble, N. S., Des Moines.
Quire, F. E., Taintor.
Shine, M. L., Winthrop.
Snyder, C. A., Dubuque.
Tait, A. M., Blakesburg.
Thomson, T. L., Toledo.
Wellenweber, E. G., Keokuk.

KANSAS

Anderson, A. G., Wichita.
Dillingham, W. R., Morland.
Graves, H. W., Gypsum City.
Kirby, J. C., Cedar Vale.
Townsdin, A. M., Barnard.
Tretbar, F. W., Hudson.
Woodin, J. G., Iola.
Wiley, F. M., Fredonia.
Yereman, O. H., Kansas City.

KENTUCKY

Anderson, J. L., Manchester.
Brand, L., Maysville.
Clark, G. F., Winchester.
Craddock, J. W., Bonnieville.
English, C. C., Louisvile.
Fugate, I. T., Middlesboro.
Gambille, J. C., Paintsville.
Hoover, J. C., Owensboro.
Hord, W. H., Maysville.
Hornsby, H. C., Burning Spgs.
Horton, W. A., Grayson.
Humphrey, B. F., Sturgis.
Hunt, J. D., Lexington.
Kendall, J. L., Louisville.
Knox, J. F., Bowen.
Manning, I. S., Manchester.
McKee, E. M., Lexington.
Nunn, W. H., Henshaw.
O'Roark, G. B., Grayson.
Phelps, R. M., Versailles.
Proctor, W. A., Auburn.
Ricketts, C. T., Bright Shade.
Smith, L. O., Williamsburg.
Stovall, J. Q., Grayson.
Taylor, T. J., Richmond.
Webb, G. P., Burning Spgs.
Wood, R. W., Danville.
Wynns, J. G., Sturgis.

LOUISIANA

Sims, E. K., Donaldsonville.

MAINE

Austin, L. K., Waterville.

MARYLAND

Bay, R. P., Baltimore.
Carmine, W. M., Ridgely.
Deming, H. V., Cumberland.
Keller, L. H., Hagerstown.
Macgill, J. C., Catonsville.
McLane, W. O., Frostburg.
Ross, J. A., Trappe.
Smart, L. G., Lutherville.
White, E. W., Poolesville.

MASSACHUSETTS

Cleaves, H. T., Harding.
Cutter, Ephraim, West Falmouth.
Dwight, E. W., Boston.
Farr, I. H., Holyoke.
Frame, Joseph, Rockland.
Giguere, A. J., North Adams.
Hamilton, A. J. A., South Boston.
Holden, C. S., Attleboro.
Keenan, H. J., South Boston.
Le Gro, L. B., Haverhill.
MacCallum, W. P., Boston.
Mixter, C. G., Boston.
Paine, N. E., West Newton.
Raymond, K. P., Wellesley.
Richardson, C. A. C., Somerville.
Richardson, E. P., Boston.
Smalley, F. L., Reading.
Stevens, H. P., Cambridge.
Ward, E. S., N. Attleboro.
White, Levi, Worcester.
Whitney, E. M., New Bedford.

MICHIGAN

Fuerbringer, G. H., Saginaw.
Hewkey, J. W., Alanson.
Howell, A. J., Deford.
Lang, F. W., Marine City.
Long, C. E., Elk Rapids.
McLean, C. H., Caro.
McRae, D. H., Beal City.
Pease, J. F., Big Rapids.
Probert, C. C., Roscommon.
Rand, W. H., Charlotte.
Staley, W. A., Fairgrove.
Stickley, A. E., Mesick.
Willoughby, L. L., Mancelona.
Woodbury, W. E., Ionia.

MINNESOTA

Allen, H. W., Minneapolis.
Altnow, H. O., Brainerd.
Benepe, L. M., St. Paul.
Brede, W. G., Minneapolis.
Daugherty, L. E., Eveleth.
Franchina, F., St. Paul.
Hagen, O. J., Moorhead.
Hand, W. R., Wendell.
Holcomb, O. W., St. Paul.
Mellenthin, M. A., Janesville.
O'Hair, Patrick, Waverly.
Rexford, L. A., Minneapolis.
Roan, C. M. J., Minneapolis.
Rome, R. R., Minneapolis.

MISSISSIPPI

Anderson, H. M., Tupelo.
Bell, C. G., Canton.
Darden, G. T., Blanton.
Givhan, J. E., Pontotoc
Marshall, C. J., Lambert.
McKinley, W. R., Columbus.
Orendorf, B. T., Rolling Fork.
Perkins, F. P., Batesville.
Tucker, C. H., Philipp.

MISSOURI

Austin, C. S., Carrollton.
Bond, H. W., St. Louis.
Brewster, R. B., Kansas City.
Crawford, R. O., Eldorado Spgs.
Crump, Archileus, Batesville.
Dailey, F. B., Keota.
De Long, S. W., Blythedale.
Erdhaur, H. B., St. Louis.
Gallagher, J. C., Valley Park.
Griffin, Fred, Mexico.
Harris, J. A., Mt. Vernon.
Harrison, Wm., Marshall.
Hatton, O. F., Sedalia.
Heuske, A. C., St. Louis.
Hull, A. G., Kansas City.
Humphreys, T. H., Kissee Mills.
Humphrey, J. H., St. Louis.
Lapp, J. G., Kansas City.
Long, J. M., St. Louis.
Love, W. S., Bertrand.
Lyttle, J. A., Goodson.
Martin, S. P., East Prairie.
Mayfield, L. S., Illmo.
McCoy, W. B., Bronaugh.
McCully, James, Dixon.
Nixon, J. H., Springfield.
O'Brien, L. F., Webster Groves.
Prentice, H. S., Pleasant Hill.
Ragsdale, T. J., Lees Summit.
Remme, C. T., St. Louis.
Rice, J. M., Columbus.
Royster, G. D., St. Louis.
Sandperl, Harry, St. Louis.
Scott, E. A., St. Louis.
Seba, J. D., Bland.
Spitze, E. C., St. Louis.
Staats, V. C., St. Louis.
Standard, D. E., Springfield.
Strode, R. C., Mexico.
Taylor, H. I., New Bloomfield.
Vandeventer, D. O., Garrison.
Willis, J. B., Farley.
Witter, W. L. M., Milan.
Woods, R. J., Smithville.

MONTANA

Attix, F. F., Lewistown.
Jordan, Arthur, Twin Bridges.

Lanphier, V. A., Butte.
Rightenour, G. W., Sheridan.
Rundquist, E. M., Missoula.
Shea, W. E., Missoula.
Smetter, M. C., Butte.
Smith, H. F., Pony.

NEBRASKA

Greenman, J. W., Hastings.
McCabe, F. H., Arapahoe.
Moore, M. S., Gothenburg.
Pheasant, L. R., Pierce.
Pheland, L., Grand Island.
Robinson, Amy, Hastings.
Simanek, G. F., Omaha.
Taylor, J. S., Steele City.
Wengert, H. C., Overton.
Wiederanders, E. F., Eustis.
Willis, J. M., Marsland.
Woodard, J. M., Aurora.

NEVADA

Krebs, E. T., Carson City.
Maclean, Donald, Reno.

NEW HAMPSHIRE

Bailey, G. S., Hillsboro.
Barker, R. H., Chester.
Beattie, W. J., Littleton.
Davis, W. S., Sanbornville.
Stearns, H. C., Concord.

NEW JERSEY

Baldwin, W. E., Newark.
Bowman, J. F., Irvington.
Boysen, P., Riverton.
De Grofft, E. E., Woodstown.
Finke, G. W., Hackensack.
Kain, W. W., Camden.
Kaufnold, Frank, Newark.
Keim, W. F., Newark.
Marcus, M. D., Atlantic City.
Meinzer, M. S., Perth Amboy.
Underwood, J. H., Woodbury.
Wainwright, J. M. B., Jersey City.

NEW MEXICO

Amble, C. J., Manzano.
Burton, S. L., Albuquerque.
McCreary, Marcellus, Magdalena.
Ottoson, C. D., Willard.
Russell, J. G., Tucumcari.
Sellers, H. W., Knowles.
Triplett, T. A., Koehler.

NEW YORK

Burke, Joseph, Buffalo.
Clark, T. E., Brooklyn.
Corwin, A. S., Rye.
Cutler, C. W., New York City.
Duchscherer, C. C., Buffalo.
Frankel, Meyer, New York City.
Grant, J. P., New York City.
Grushlau, Israel, New York City.
Guenther, T. C., Brooklyn.
Johnston, J. C., New York City.
Kindred, J. J., New York City.
King, L. W., Lowville.
Lyons, J. J., Brooklyn.
Macpherson, Duncan, New York City.
Macumber, J. L., Brooklyn.
Matheson, A. R., Brooklyn.
McCombs, G. M., Hempstead.
Nelson, J. R., Kingston.
Preston, A. W., Middletown.
Radin, M. L., New York City.
Rex, W. F., Brooklyn.
Riedel, A. H., New York City.
Rushman, J. C., Brooklyn.
Schirck, F. F., Nimeola.
Shaut, F. C., Addison.
Smart, I. T., New York City.
Tanner, E. K., Brooklyn.
Whitbeck, B. H., New York City.
White, Davenport, New York City

NORTH CAROLINA

Boone, W. H., Morrisville.
Brown, Zeno, Greenville.
Faison, I. W., Charlotte.
Lawrence, C. S., Mt. Airy.
Salley, E. M., Saluda.
Schonwald, J. T., Wilmington.
Summers, C. L., Winston-Salem.

NORTH DAKOTA

Hagan, E. J., Williston.
Helmark, A. J., Finley.
McCannel, A. D., Minot.
McLean, Neil, Kenmare.
Moeller, T. O. E., Minot.

OHIO

Berry, J. C., Alledonia.
Bookwalter, W. S., Miamisburg.
Brodberger, W. L., Cincinnati.
Brush, E. C., Zanesville.
Burgess, N. A., Rock Creek.
Foertmeyer, A. W., Cincinnati.
Gantt, S. O., Centerburg.
Hawley, E. N., Norwalk.
Heyn, D. S., Cincinnati.
Hill, E. W., Cleveland.
Jolley, J. W., Morral.
Junkerman, G. S., Cincinnati.
Kennedy, S. V., Washingtonville.
King, Clarence, Cincinnati.
Kunz, Frank E., Greenville.
Lapsley, Inez, Cincinnati.
Lemley, E. P., Vaughnsville.
McCreight, G. C., New Concord.
McGavren, G. W., Van Wert.
Metzger, Jeremiah, Toledo.
Monaghan, E. P., Cleveland.
Nelles, A. B., Columbus.
Pfeiffer, Arthur, Cincinnati.
Ramsey, W. C., Hopedale.
Schutzbach, J. C., Strasburg.
Stoeltzing, C. A., Cleveland.
Thompson, C. A., Raymond.
Thompson, F. E., Geneva.
Tweedie, A. M., Cleveland.
Weiser, W. J., Marion.
Wills, L. E., Omega.
Yoder, H. M., Smithville.

OKLAHOMA

Bailey, F. M., Carnegie.
Bomborger, C. C., Paden.
Chumbley, C. A., Rocky.
Dunn, R., Davis.
Feild, Julian, Enid.
Gill, W. W., Gracemont.
Haas, Karl, Harrah.
Jackson, T. J., Marsden.
Johnson, G. L., Byars.
Lancaster, L. T., Avard.
McQuaid, J. M., Cloud Chief.
Moore, L. F., Jackson.
Moss, B. H., Willow.
Mullins, G. C., Kiowa.
Neighbors, G. C., Broken Arrow.
Penney, T. A., Tulsa.
Riggan, C. E., Monroe.
Scarborough, J. W., Russell.
Shinn, T. J., Wagoner.
Shull, R. J., Hugo.
Stiles, G. S., Morse.
Tedrowe, C. W., Elk City.
Walker, J. A., Fleetwood.
Weiser, D. D., Alden.
Weller, R. E., Pawnee.
Westermeier, G. W., Anadarko.

OREGON

Babbitt, O. M., Portland.
Beaumont, J. F., Portland.
Brooke, F. W., Portland.
Ellis, R. H., Portland.
Fessler, Theo., Portland.
Koehler, G. F., Portland.
Saylor, A. L., Sherwood.

PENNSYLVANIA

Anders, W. Z., Trappe.
Beattie, John, Lebanon.
Bell, D. M., Claysville.
Berge, W. H., Avoca.
Berryhill, W. G., South Sharon.
Boale, J. A., Vandergrift Heights.
Brallier, S. A. E., Conemaugh.
Brecker, N. F., Philadelphia.
Bunce, W. M., Philadelphia.
Currie, C. A., Philadelphia.
Dibert, C. C., Buffalo Mills.
Dintenfass, Henry, Philadelphia.
Dolson, F. E., Philadelphia.
Dunmore, C. A., Philadelphia.
Field, B. R., Easton.
Fisher, J. V., Philadelphia.
Fox, G. T., Bath.
Greenewalt, F. L., Philadelphia.
Hanna, G. C., Philadelphia.
Koons, P. R., Mechanicsburg.
Lichtenwalner, Sarah M., Philadelphia.
McAvoy, J. F., Catasauqua.
Neel, H. A. P., Philadelphia.
Norris, E. P., New Castle.
Powell, W. E., Philadelphia.
Price, C. E., Philadelphia.
Price, H. T., Pittsburg.
Raby, M. R., Philadelphia.
Reinoehl, D. V., Erie.
Ritter, F. W., Tannersville.
Roberts, M. A., Philadelphia.
Spatz, G. E., Hampton.
Swindells, W. C., Philadelphia.
Waage, F. O., Philadelphia.
Weaver, H. F., Easton.
Weaver, J. M., Allentown.
Weddell, E. P., Scottdale.
Wesley, W. H., Pittsburg.
Wright, G. J., Pittsburg.
Yaeger, C. G., Philadelphia.

RHODE ISLAND

Flynn, H. S., Providence.
Garvin, L. F. C., Providence.
Hopkins, H. W., Warren.
Payne, F. I., Westerly.

SOUTH CAROLINA

Alston, Rowland, Charleston.
Fennell, W. W., Rockhill.
Nardin, W. H., Anderson.
Orr, J. L., Greenville.
Owens, L. B., Columbia.
Smith, R. D., Greenville.
Young, J. L., Clinton.

SOUTH DAKOTA

Holmes, C. F., Hecla.
Homan, C. A., Emery.
Miller, J. L., Kennebec.
Minty, F. W., Rapid City.
Schroyer, C. T., Chester.

TENNESSEE

Anderson, W. S., Memphis.
Blanton, M. A., Union City.
Boyatt, F. M., Oneida
Blew, James, Jr., Nashville.
Clifton, Joe, Hickory Valley.
Delaney, J. A., Bristol
Geisler, F. O., Isabella.
Jones, T. ap R., Knoxville.
Morrison, J. C., Clarksville.
Paschall, G. C., Arrington.
Pickens, D. R., Nashville.
Quinn, E. A., Cleveland.
Sells, G. J., Johnson City.
Smith, T. L., Morristown.
Stevens, J. W., Nashville.
Walden, V. A., Fountain Head.
Watkins, E. D., Memphis.
West, E. T., Johnson City.

TEXAS

Braden, C. F., El Paso.
Nash, A. W., Dallas.
Robinson, G. J., Houston Heights.
Warren, W. O., Pecan Gap.
Wilhite, J. T., Austin

UTAH

Bridge, T. B., Logan City.
Cannon, W. T., Salt Lake City.
Gose, I. T., Eureka.
Snow, Clarence, Salt Lake City.

VERMONT

Duffy, P. S., Barre.
Greene, H. P., Brattleboro.
McGinity, J. T., Ludlow.

VIRGINIA

Brown, Benj., Nokesville.
Curtis, H. W., Denbigh.
Gill, W. W., Richmond.
Hillsman, J. A., Richmond.
Hurst, J. A., Pennington Gap.
Jones, J. F., Richmond.
Lake, N. P., Rectortown.
Lipscomb, P. D., Richmond.
Parrish, C. T., Portsmouth.
Sherrill, Z. V., Marion.
Tompkins, McCaw, Richmond.
Upshur, F. W., Richmond.
Woodson, G. C., Richmond.

WASHINGTON

Bridge, A. W., Eatonvile.
Carr, F. L., Montisano.
Grove, C. E., Spokane.
Johnson, A. E., Spokane.
Nagler, F. W., North Yakima.
Parsons, I. W., Hartford.

WEST VIRGINIA

Capito, G. B., Charleston.
Hicks, C. F., Welch.
Nutter, R. B., Enterprise.
Preston, C. B., Burnwell.
Truschel, C. M., Wheeling.

WISCONSIN

Hoffman, Elmer, Gotham.
Hough, A. G., Morrisonville.
Lowenhart, A. S., Madison.
Minahan, R. E., Green Bay.
Quick, E. W., Appleton.
Schneider, F., New London.
Schwarz, S. G., Granton.
Tupper, E. E., Eau Claire.

Queries and Minor Notes

Anonymous Communications will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed.

BOOKS ON MEDICINE FROM THE HISTORICAL POINT OF VIEW

To the Editor:—Please recommend a list of books on the history of medicine for a student's leisure reading. I have read Mumford's "Narrative of Medicine in America." Recent Graduate.

Answer.—The following works would form an excellent introduction to the history of medicine. We name those which are mainly biographic because this department of history is the most interesting; it is persons rather than things that hold our attention.

Richardson, Benjamin Ward: "Disciples of Æsculapius," 2 volumes. This contains an excellent series of lives of men who did original work in medicine.

Mumford, James G.: "Surgical Memoirs," Moffatt, Yard & Co., New York, $2.50. An American volume quite equal to Richardson's in interest and information.

Osler, William: "An Alabama Student," Oxford University Press (American office), New York, $2.50. This is a very interesting series of biographic papers on American physicians of the last century.

Walsh, James J.: "Makers of Modern Medicine," Fordham University Press, New York (about $2.50). This traces the development of modern medicine from Morgagni to Pasteur.

"Masters of Medicine," Longmans, Green & Co., New York, $2 net. Sketches in separate volumes of Hunter, Harvey, Jenner, Simpson, Stokes, Claude Bernard, Helmholz, Brodie, Sydenham and Vesalius.

Camac: "Epoch-Making Contributions to Medicine, Surgery and the Allied Sciences," W. B. Saunders Co., Philadelphia. One of the most important contributions to the history of medicine; reprints of the papers that have made the ground-breaking progress in modern medicine, together with short sketches of the authors.

Packard, Francis R.: "History of Medicine in the United States, down to 1808," J. B. Lippincott Co, Philadelphia, net, $4. The early history of medicine in America is much more interesting than is usually thought, and this work of Dr. Packard's is both exhaustive and scholarly.

Walsh, James J.: "History of the Medical Society of the State of New York." Chapters in this book show how much more our grandfathers knew of medicine than we are likely to think.

Puschmann: "Handbook of the History of Medicine," 3 volumes (German). This standard work has revolutionized the history of medicine by showing what fine work was accomplished in some of the old medical schools and especially by the old-time surgeons (thirteenth and fourteenth centuries).

Allbutt, T. C.: "The Historical Relations of Medicine and Surgery," an address at the International Congress of Arts and Sciences, St. Louis, 1904. *American Medicine*, Oct. 15, 1904. Also republished in pamphlet form.

Steven, J. L.: "Morgagni to Virchow: An Epoch in the History of Medicine," *Lancet*, Nov. 4, 1905.

In addition to those given, the following books are well worth reading:

Foster, Michael: "History of Physiology," Macmillan Co., New York, net, $2.25. *Most fascinating and instructive; should* be the first one thought of.

Moore, Norman: "Medicine in the British Isles," Oxford Medical Publications, 10s 6d.

Allbutt, T. C.: "Science and Medieval Thought," Macmillan Co., New York, net, $1.50.

Paget, S.: "Memoirs and Lectures of Sir James Paget," Longmans, Greene & Co., New York, net, $2.50.

Sprigge, S. Squire: "Life and Times of Thomas Wakley."

Osler: Æquanimitas, and other Essays," P. Blakiston's Son & Co., Philadelphia, $2.25.

Payne, J. F.: "English Medicine in Anglo-Saxon Times," Oxford Medical Publications, $2.90.

McKay, Stuart: "Ancient Gynecology," William Wood & Co., New York, $3.

Milne: "Surgical Instruments in Greek and Roman Times," Clarendon Press, $4.75.

Cordell, E. S.: "Medical Annals of Maryland."

The three following works are text-books of the history of medicine:

Bass: "Outlines of History of Medicine," G. P. Putnam's Sons, New York, $6.

Park, Roswell: "Epitome of History of Medicine," F. A. Davis Co., Philadelphia, $2.

Davis, N. S., Jr.: "History of Medicine," Cleveland Press, Chicago, $2.

"Biographical Cyclopedia of Medical History," edited by C. Wells Moulton, with a history of medicine from its origin to the nineteenth century, by J. Bostock, F.R.S., Saalfield Publishing Co., Akron, Ohio, $2.50. A useful reference book, as it contains brief biographies of a large number of prominent members of the healing art in all ages.

RECENT HISTORY OF SURGERY

To the Editor:—Please refer me to any publications containing information about recent advances in surgery and about the surgeons who have made important contributions to the subject in the past fifty years. H. N. C.

Answer.—The following references may be found of interest on this subject:

Lister, Lord: Points in the History of Antiseptic Surgery, *Lancet*, June 27, 1908.

Tinker, M. B.: America's Contributions to Surgery, *Indiana Med. Jour.*, November, 1902.

Hupp, F. L.: Achievements of Modern Surgery, *New York Med. Jour.*, Oct. 17, 1908.

Inge, J. M.: Developments of Modern Surgery, *Texas State Jour. Med.*, January, 1907.

Vander Veer, A.: Four decades of American Surgery, *Virginia Med. Semi-Monthly*, Dec. 27, 1907.

Niles, M. D.: Twentieth Century Surgical Problems, The Journal A. M. A., April 14, 1906, xlvi, 1071.

Bartlett, Willard: The Present Scope of Stomach Surgery, *St. Louis Med. Rev.*, March 23, 1907.

Oliver, J. H.: The Progress of Surgery in the United States, *Indiana Med. Jour.*, April, 1907.

Abbe, Robert: The Problems of Surgery, *Alabama Med. Jour.*, May, 1905.

Park, Roswell: *Progress in Surgery* in the Nineteenth Century, *New York Jour. Med.*, March and April, 1908.

Tinker, M.: The First Nephrectomy and the First Cholecystotomy, with a Sketch of the Lives of Dr. Erastus B. Wolcott and John S. Bobbs, *Johns Hopkins Hosp. Bull.*, August, 1901.

Kelly, Howard A.: Early History of Appendicitis in Great Britain, *Glasgow Med. Jour.*, August, 1903.

Ballance, C. A.: Then and Now in Surgery, *Lancet*, Oct. 20. 1906.

Ricketts, B. M.: Appendicitis, *Cincinnati Lancet-Clinic*, May 31, 1902.

Nutt, J. J.: Henry G. Davis: A Review of Some of His Work, *Medical Record*, Aug. 19, 1905.

Clark, Pierce: Biographical Sketch of Michaelis, the Pioneer Worker on Nerve Degeneration, *Medical Record*, March 17, 1906.

Wallace, C. H.: Triumphs of American Surgery, *Jour. Missouri Med. Assn.*, July, 1906.

Lowder, W. L.: Ephraim McDowell, *Canada Lancet*, May, 1903.

Recent work is well reviewed in the *Interstate Medical Journal* for January, 1905, 1906 and 1907, by Willard Bartlett, and for January, 1908, by M. B. Clopton.

TREATMENT OF TYPHOID

To the Editor:—I concur in nearly all of the opinions expressed by Dr. J. P. Roark (The Journal, April 3, 1909, p. 1089). I wish to call attention, however, to a point which is too frequently overlooked, namely that the *Bacillus typhosus* can not thrive in a medium that is acid; but does thrive well in a medium that is neutral or slightly alkaline, such as fresh milk. If we do not wish to give the bacilli a favorable medium in which to multiply we shall give the patient food that is liquid and acid in reaction. The buttermilk that Dr. Roark mentions is excellent provided that enough lactic acid has developed in it to prevent or inhibit the multiplication of the germs of typhoid fever; grape juice, because of its acidity, is an excellent food for typhoid fever patients, and any sour fruit sauce is unfavorable to germ life. I am convinced that in buttermilk and fruit juices we have the ideal food for typhoid fever patients. D. W. Reed, Greeley, Colo.

Comment.—The use of acids and fruit juices in typhoid is undoubtedly beneficial, but it is doubtful whether the reaction of the intestinal contents can be made sufficiently acid to inhibit the growth of typhoid bacilli. The typhoid bacilli grow in slightly acid media. Further, late investigations show that typhoid fever is a bacteriemia and the bacteria in the blood can not well be influenced by acids given by the mouth, since an acid reaction of the blood appears to be incompatible with life.

SEROTHERAPY OF TYPHOID

To the Editor:—Please give me information regarding an antitoxin or vaccine for the treatment of typhoid fever.
J. W. Nolan, M.D., Chittabalbie, Korea.

Answer.—The best known antitoxic serum is that of Chantemesse, which is prepared by injecting horses with the dead bacilli of typhoid fever. Chantemesse and others report great success with it, but it has not come into extensive use. V. C. Vaughan, of Ann Arbor, has also produced a residue from the bodies of the typhoid bacilli which he has employed in the treatment of typhoid fever. This agent seems to make the typhoid process longer, but not so severe It is not probable that an antitoxin can be obtained for typhoid similar to the antitoxin of diphtheria, but the serums may do some good by stimulating the defensive activities of the body cells. The following articles may be referred to:

Brunon and Josias: Serum Treatment of Typhoid Fever, *Bull. de l'Acad. de Méd.*, Nos. 9-10, 1906; abstracted in The Journal, April 28, 1909, p. 1322.

Richardson, M. W.: Specific Treatment of Typhoid, *Boston Medical and Surgical Journal*, Oct. 3, 1907; abstracted in The Journal, Oct. 19, 1907, p. 1400.

Chantemesse: Serum Treatment of Typhoid, *Med. Press and Circular*, Dec. 25, 1907; abstracted in The Journal, Jan. 25, 1908, p. 319.

Vaughan, V. C.: Specific Treatment of Typhoid, *Am. Jour. of Med. Sci.*, September, 1908; abstracted in The Journal, Oct. 31, 1908, p. 1550.

Watters, W. H., and Eaton, C. A.: Vaccine Treatment of Typhoid, *Medical Record*, Jan. 16, 1909; also Vaccine in Typhoid, *Boston Medical and Surgical Journal*, April 22, 1909. Abstracted in The Journal, May 8, 1909.

TO EXPEL BLOOD FROM BODY IN OBSTETRIC WORK

To the Editor:—In your issue of April 17, 1909, page 1303, abstract 116, you advise following Momburg's directions for expelling the blood from lower half of body in obstetric work. Will you please advise where such directions may be found?
Geo. T. Clark.

Answer.—Momburg's articles on the subject were summarized in The Journal July 11, 1908, page 177, and Nov. 14, page 1742.

The Public Service

Army Changes

Memorandum of changes of stations and duties of medical officers, U. S. Army, week ended May 1, 1909:

Brooks, W. H., capt., granted an extension of four months to his sick leave of absence.

Carter, W. F., Gibson, R. J., and Johnson, R. W., majors, ordered to report on May 20 at Washington, D. C., for examination for promotion.

Chamberlain, W. P., Page, Henry, Shockley, M. A. W., majors, relieved from duty at present stations in time to sail August 5 from San Francisco for Philippine service.

Krebs, L. L., capt., relieved from duty on transport *Thomas* and from treatment at San Francisco, and ordered to Fort Bayard, N. M., for duty at the Army General Hospital.

Dale, F A, Roberts W M, Farr C W, Shook J R, Vose, W F, captains ordered to report at Washington, D C, for examination for promotion

Pinkston, O W, 1st lieut, granted leave of absence for ten days

Rafferty, Ogden, major, granted sick leave of absence for two months

Rutherford, H H, Ruffner, E L, Whitmore E B, Brownlee, C Y, captains, ordered to report at Manila, P I, for examination for promotion

Woodbury, F T capt, ordered to report at San Francisco for examination for promotion

Palmer F W, capt, granted leave of absence for two months

Richard, Chas, lieut col, relieved from duty at Fort Jay, N Y, in time to proceed to San Francisco and sail August 5 for Philippine service

Lambie J S, Jr, 1st lieut, relieved from duty at Fort Monroe, Va in time to proceed to San Francisco and sail July 5 for Philippine service

Bowman M D, M R C, ordered from Fort Baker, Cal, to the Depot of Recruits and Casuals Angel Island, Cal for duty

Enders, W J, M R C, granted sick leave of absence for twenty-six days

Haley, J C, M R C, relieved from duty at Fort Porter, N Y, *and ordered to Fort Jay, N Y for duty*

McCornack C C M R C, ordered to active duty and assigned to Vancouver Barracks Wash, for duty

Kress C C, M R C, granted an extension of his leave of absence to June 1

Wheate, J M, M R C, relieved from temporary duty at Fort Snelling Minn, and ordered to return to his proper station, Fort Lincoln, N D

Navy Changes

Changes in the Medical Corps, U S Navy, for the week ended May 1, 1909

Trotter C E, and Bass J A, acting asst surgeons appointed acting assistant surgeons from April 19, 1909

Bucher, W H, surgeon, ordered to treatment at the Naval Hospital, Las Animas, Colo

Ohnesorg, K, surgeon, ordered to the *Louisiana*

Breck F W, pharmacist, ordered to the navy yard, Norfolk, Va

Smith, W B, P A surgeon, detached from the *Helena* and ordered to the *Denver*

Blackwell, L M, surgeon, detached from the Naval Academy and ordered to the *Chicago*

McDonell, W N, P A surgeon, detached from the Naval Academy and ordered to the *Hartford*

Sutton D G, asst surgeon, detached from the Naval Academy and ordered to the *Tonopah*

Clifton, C L asst surgeon, detached from duty at the Naval Hospital Philadelphia, and ordered to the Naval Recruiting Station, Cincinnati

Public Health and Marine-Hospital Service

List of changes of stations and duties of commissioned and other officers of the Public Health and Marine Hospital Service for the seven days ended April 28, 1909

Wasdin, Eugene, surgeon, granted 1 month s leave of absence from April 22 1909, on account of sickness

Wertenbaker, C P, surgeon detailed to represent the service at the annual meeting of the Virginia State Conference of Charities and Corrections, to be held at Lynchburg, Va, May 19, 1909

Trask, J W, P A surgeon, granted 2 days leave of absence from April 26 1909

Hotchkiss, Samuel C, asst surgeon, directed to proceed to San Francisco and report to the medical officer in command of the Marine Hospital for duty and assignment to quarters

Bailey, C A, acting asst surgeon, directed to proceed from St John N B, to Quebec, Canada for duty

Bullard, J T, acting asst surgeon, granted 9 days' leave of absence *from March 31, 1909*, without pay

Carter P I, acting asst surgeon, granted 20 days' leave of absence from April 29, 1909

Duffy, Francis acting asst surgeon granted 3 days' leave of absence *from April 28 1909*

Gale, R G, acting asst surgeon granted 30 days' extension of annual leave on account of sickness from Jan 16 1909

Gale R G, acting asst surgeon granted 30 days leave of absence from Feb 16, 1909, and 9 days leave of absence, without pay, from March 24, 1909

Gustetter, A L, acting asst surgeon, granted 1 day s leave of absence, April 3, 1909

Terry, M C acting asst surgeon, granted 7 days leave of absence from April 11, 1909, under paragraph 210, Service Regulations

Wetmore, W O, acting asst surgeon, granted 2 days' extension of annual leave on account of sickness from April 17, 1909

Wetmore, W O acting asst surgeon, granted 12 days' leave of absence from April 23 1909

Wherry, Wm B, acting asst surgeon granted 3 days' leave of absence from April 21, 1909, under Paragraph 210, Service Regulations

Health Reports

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon General, Public Health and Marine Hospital Service, during the week ended April 30, 1909

SMALLPOX—UNITED STATES

Alabama: Dallas County, *Feb 20-April 12*, 12 cases; Selma, Feb 28-April 12, 26 cases

California San Francisco, April 3-10 1 case

District of Columbia Washington, April 10-17, 2 cases

Georgia: Macon, April 11-18 4 cases

Illinois Danville, April 4-18 13 cases, Galesburg, April 10-17, 2 cases, Springfield, April 2-16, 6 cases

Indiana Fort Wayne, April 6-17, 2 cases, Indianapolis, April 11-18, 1 case, Lafayette April 12-19, 1 case

Iowa Davenport, April 11-18, 1 case

Kansas Kansas City, April 10-17, 15 cases; Wichita, April 3-10, 2 cases

Kentucky Newport, March 30-April 10, 14 cases

Louisiana New Orleans, April 3-17, 7 cases, 4 imported

Massachusetts Taunton, 1 case erroneously reported by health officer, January 9

Michigan Saginaw, April 3-10, 6 cases

Minnesota Duluth, April 8-15, 3 cases, Minneapolis, March 27-April 10, 6 cases

Missouri St Louis April 3-17, 3 cases

Montana Butte, March 23-30, 1 case, April 6-13, 1 case, imported

New Jersey Camden April 10-17, 4 cases, *Haddonfield, March* 20-27, 2 cases, Plainfield, April 3-10, 2 cases

Ohio Ashtabula, April 10-17, 3 cases, Cincinnati, April 9-16, 7 cases, Cleveland, 1 case

Tennessee Knoxville, April 10-17, 2 cases, Nashville, 2 cases

Texas Galveston, April 2-16, 6 cases, San Antonio, April 10-17, 5 cases

Washington Spokane, March 27-April 10, 6 cases

Wisconsin Appleton, April 12-19, 1 case, La Crosse, April 10-17, 3 cases, Milwaukee, April 3-17, 25 cases

SMALLPOX—INSULAR

Philippine Islands Manila, Feb 21-March 6, 6 cases, 1 death

SMALLPOX—FOREIGN

Algeria Bona, March 1-31, 18 cases, 12 deaths

Brazil Bahia, Feb 27-March 13, 26 cases, 5 deaths; Rio de Janeiro, March 7-14 21 cases, 9 deaths

Canada Halifax, April 3-10, 1 case

China Amoy, March 6-13, present, Hongkong, Feb 27-March 6, 3 cases 1 death

Egypt Cairo, Feb 25-March 18, 77 cases, 28 deaths, Suez, Feb 4-25, 27 cases 2 deaths

France Nantes, March 14-21, 1 case, Paris, March 27-April 3, 5 cases, 1 death

India Bombay, March 6-13, 15 deaths, Calcutta, 264 deaths; Madras March 19, 1 death, Rangoon, March 6-13, 11 deaths

Indo China Saigon, Feb 27-March 13, 15 cases, 6 deaths

Italy General, March 27-April 4, 56 cases, Naples, 15 cases, 2 deaths

Java Batavia, March 6-13, 3 cases

Manchuria Dalny, March 6-13, 1 case

Mexico Acapulco, Feb 7-14, 3 cases, Monterey, April 4-11, 7 deaths

Portugal Lisbon, April 3-10, 2 cases

Russia Moscow, March 20-27, 35 cases, 11 deaths, Odessa, 4 cases, 1 death, St Petersburg March 13-20, 17 cases, 2 deaths

Spain Barcelona, March 23-April 5, 4 deaths, Madrid, March 1-31 28 deaths Valencia, March 26-April —, 7 deaths

Straits Settlements Singapore, Feb 27-March 6, 1 death

Turkey Bassorah, May 20-27, present

YELLOW FEVER

Barbados April 3-10, 3 cases

Ecuador Guayaquil, March 13-27, 28 deaths

CHOLERA

India Bombay, March 16-23, 1 death, Calcutta, March 6-13, 98 deaths, Madras, March 13-19, 1 death, Rangoon, March 6-13, 6 deaths

Russia St Petersburg, April 1-6, 11 cases 4 deaths

PLAGUE

Azores Fayal, April 1, 1 case

Brazil Bahia, Feb 27-March 6, 2 cases, *Rio de Janeiro*, March 7-14, 4 cases

China Amoy, March 6-13, present, Chang Poo, March 13, epidemic, Chin Chow, present, Hongkong, Feb 27-March 6, 3 cases, 2 deaths

Ecuador Guayaquil, March 13-27, 15 deaths

Great Britain Elstree (Plague Laboratory), Feb 1-4, 1 case, 1 death

India Bombay, March 16-23, 436 deaths, Calcutta, March 6-13, 85 deaths

Indo China Saigon, Feb 27-March 13, 3 deaths.

Russia Libau, March 28-April 5 1 case

Medical Economics

THIS DEPARTMENT EMBODIES THE SUBJECTS OF ORGANIZATION, POSTGRADUATE WORK, CONTRACT PRACTICE, INSURANCE FEES, LEGISLATION, ETC.

Medical Legislation in Various States

FLORIDA

A bill has been introduced into the state legislature providing for a separate board of osteopathic examiners The bill will probably become a law unless the medical profession of the state can be aroused to the danger of such a measure and the importance of securing its defeat.

COLORADO

Dr S D Van Meter, secretary of the Colorado State Board of Medical Examiners, reports that the bill to amend the Colo-of medicine by showing what fine work was accomplished in some of the old medical schools and especially by the old-time surgeons (thirteenth and fourteenth centuries).

Allbutt, T. C.: "The Historical Relations of Medicine and Surgery," an address at the International Congress of Arts and Sciences, St. Louis, 1904. *American Medicine*, Oct. 15, 1904. Also republished in pamphlet form.

Steven, J. L.: "Morgagni to Virchow: An Epoch in the History of Medicine," *Lancet*, Nov. 4, 1905.

In addition to those given, the following books are well worth reading:

Foster, Michael: "History of Physiology," Macmillan Co., New York, net, $2.25. Most fascinating and instructive; should be the first one thought of.

Moore, Norman: "Medicine in the British Isles," Oxford Medical Publications, 10s 6d.

Allbutt, T. C.: "Science and Medieval Thought," Macmillan Co., New York, net, $1.50.

Paget, S.: "Memoirs and Lectures of Sir James Paget," Longmans, Greene & Co., New York, net, $2.50.

Sprigge, S. Squire: "Life and Times of Thomas Wakley."

Osler: Æquanimitas, and other Essays," P. Blakiston's Son & Co., Philadelphia, $2.25.

Payne, J. F.: "English Medicine in Anglo-Saxon Times," Oxford Medical Publications, $2.90.

McKay, Stuart: "Ancient Gynecology," William Wood & Co., New York, $3.

Milne: "Surgical Instruments in Greek and Roman Times," Clarendon Press, $4.75.

Cordell, E. S.: "Medical Annals of Maryland."

The three following works are text-books of the history of medicine:

Bass: "Outlines of History of Medicine," G. P. Putnam's Sons, New York, $6.

Park, Roswell: "Epitome of History of Medicine," F. A. Davis Co., Philadelphia, $2.

Davis, N. S., Jr.: "History of Medicine," Cleveland Press, Chicago, $2.

"Biographical Cyclopedia of Medical History," edited by C. Wells Moulton, with a history of medicine from its origin to the nineteenth century, by J. Bostock, F.R.S., Saalfield Publishing Co., Akron, Ohio, $2.50. A useful reference book, as it contains brief biographies of a large number of prominent members of the healing art in all ages.

RECENT HISTORY OF SURGERY

To the Editor:—Please refer me to any publications containing information about recent advances in surgery and about the surgeons who have made important contributions to the subject in the past fifty years. H. N. C.

Answer.—The following references may be found of interest on this subject:

Lister, Lord: Points in the History of Antiseptic Surgery, *Lancet*, June 27, 1908.

Tinker, M. B.: America's Contributions to Surgery, *Indiana Med. Jour.*, November, 1902.

Hupp, F. L.: Achievements of Modern Surgery, *New York Med. Jour.*, Oct. 17, 1908.

Inge, J. M.: Developments of Modern Surgery, *Texas State Jour. Med.*, January, 1907.

Vander Veer, A.: Four decades of American Surgery, *Virginia Med. Semi-Monthly*, Dec. 27, 1907.

Niles, M. D.: Twentieth Century Surgical Problems, The Journal A. M. A., April 14, 1906, xlvi, 1071.

Bartlett, Willard: The Present Scope of Stomach Surgery, *St. Louis Med. Rev.*, March 23, 1907.

Oliver, J. H.: The Progress of Surgery in the United States, *Indiana Med. Jour.*, April, 1907.

Abbe, Robert: The Problems of Surgery, *Alabama Med. Jour.*, May, 1905.

Park, Roswell: Progress in Surgery in the Nineteenth Century, *New York Jour. Med.*, March and April, 1908.

Tinker, M.: The First Nephrectomy and the First Cholecystotomy, with a Sketch of the Lives of Dr. Erastus B. Wolcott and John S. Bobbs, *Johns Hopkins Hosp. Bull.*, August, 1901.

Kelly, Howard A.: Early History of Appendicitis in Great Britain, *Glasgow Med. Jour.*, August, 1903.

Ballance, C. A.: Then and Now in Surgery, *Lancet*, Oct. 20, 1906.

Ricketts, B. M.: Appendicitis, *Cincinnati Lancet-Clinic*, May 31, 1902.

Nutt, J. J.: Henry G. Davis: A Review of Some of His Work, *Medical Record*, Aug. 19, 1905.

Clark, Pierce: Biographical Sketch of Michaelis, the Pioneer Worker on Nerve Degeneration, *Medical Record*, March 17, 1906.

Wallace, C. H.: Triumphs of American Surgery, *Jour. Missouri Med. Assn.*, July, 1906.

Lowder, W. L.: Ephraim McDowell, *Canada Lancet*, May, 1903.

Recent work is well reviewed in the *Interstate Medical Journal* for January, 1905, 1906 and 1907, by Willard *Bartlett*, and for January, 1908, by M. B. Clopton.

TREATMENT OF TYPHOID

To the Editor:—I concur in nearly all of the opinions expressed by Dr. J. P. Roark (The Journal, April 3, 1909, p. 1089). I wish to call attention, however, to a point which is too frequently overlooked, namely that the *Bacillus typhosus* can not thrive in a medium that is acid; but does thrive well in a medium that is neutral or slightly alkaline, such as fresh milk. If we do not wish to give the bacilli a favorable medium in which to multiply we shall give the patient food that is liquid and acid in reaction. The buttermilk that Dr. Roark mentions is excellent provided that enough lactic acid has developed in it to prevent or inhibit the multiplication of the germs of typhoid fever; grape juice, because of its acidity, is an excellent food for typhoid fever patients, and any sour fruit sauce is unfavorable to germ life. I am convinced that in buttermilk and fruit juices we have the ideal food for typhoid fever patients. D. W. Reed, *Greeley, Colo.*

Comment.—The use of acids and fruit juices in typhoid is undoubtedly beneficial, but it is doubtful whether the reaction of the intestinal contents can be made sufficiently acid to inhibit the growth of typhoid bacilli. The typhoid bacilli grow in slightly acid media. Further, late investigations show that typhoid fever is a bacteriemia and the bacteria in the blood can not well be influenced by acids given by the mouth, since an acid reaction of the blood appears to be incompatible with life.

SEROTHERAPY OF TYPHOID

To the Editor:—Please give me information regarding an antitoxin or vaccine for the treatment of typhoid fever.

J. W. Nolan, M.D., Chittabalbie, Korea.

Answer.—The best known antitoxic serum is that of Chantemesse, which is prepared by injecting horses with the dead bacilli of typhoid fever. Chantemesse and others report great success with it, but it has not come into extensive use. V. C. Vaughan, of Ann Arbor, has also produced a residue from the bodies of the typhoid bacilli which he has employed in the treatment of typhoid fever. This agent seems to make the typhoid process longer, but not so severe It is not probable that an antitoxin can be obtained for typhoid similar to the antitoxin of diphtheria, but the serums may do some good by stimulating the defensive activities of the body cells. The following articles may be referred to:

Brunon and Josias: Serum Treatment of Typhoid Fever, *Bull. de l'Acad. de Méd.*, Nos. 9-10, 1906; abstracted in The Journal, April 28, 1909, p. 1322.

Richardson, M. W.: Specific Treatment of Typhoid, *Boston Medical and Surgical Journal*, Oct. 3, 1907; abstracted in The Journal, Oct. 19, 1907, p. 1400.

Chantemesse: Serum Treatment of Typhoid, *Med. Press and Circular*, Dec. 25, 1907; abstracted in The Journal, Jan. 25, 1908, p. 319.

Vaughan, V. C.: Specific Treatment of Typhoid, *Am. Jour. of Med. Sci.*, September, 1908; abstracted in The Journal, Oct. 31, 1908, p. 1550.

Watters, W. H., and Eaton, C. A.: Vaccine Treatment of Typhoid, *Medical Record*, Jan. 16, 1909; also Vaccine in Typhoid, *Boston Medical and Surgical Journal*, April 22, 1909. Abstracted in The Journal, May 8, 1909.

TO EXPEL BLOOD FROM BODY IN OBSTETRIC WORK

To the Editor:—In your issue of April 17, 1909, page 1303, abstract 116, you advise following Momburg's directions for expelling the blood from lower half of body in obstetric work. Will you please advise where such directions may be found?

Geo. T. Clark.

Answer.—Momburg's articles on the subject were summarized in The Journal July 11, 1908, page 177, and Nov. 14, page 1742.

The Public Service

Army Changes

Memorandum of changes of stations and duties of medical officers, U. S. Army, week ended May 1, 1909:

Brooks, W. H., capt., granted an extension of four months to his sick leave of absence.

Carter, W. F., Gibson, R. J., and Johnson, R. W., majors, ordered to report on May 20 at Washington, D. C., for examination for promotion.

Chamberlain, W. P., Page, Henry, Shockley, M. A. W., majors, relieved from duty at present stations in time to sail August 5 from San Francisco for Philippine service.

Krebs, L. L., capt., relieved from duty on transport *Thomas* and from treatment at San Francisco, and ordered to Fort Bayard, N. M., for duty at the Army General Hospital.

treme delicacy of the process of refraction, the dangers of cycloplegics in the hands of ignorant men, the dignity of license by a board appointed by the state, the inadvisability of making so many "eye-doctors" by such a quick process, etc., etc.

The house committee reported the bill unfavorably to the house.

The similar committee in the senate was somewhat handicapped, since it had received explanations of the bill from one standpoint only—that of the opticians.

The house unanimously killed the bill.

During the progress of the discussion of the bill in the committee, some peculiar but very important conditions developed:

1. The opticians present claimed a specialty of "optometry," in which they were experts. They were not "opticians." The sign of the most prominent one present, however, had read "Optician" for ten to fifteen years; and this sign still hangs in box-car letters over his place of business. Another well-known optician and jeweler displayed several large signs, which seemed to embrace everything: "Eyes Examined," "Expert Optometrists, "Refracting Opticians," "Manufacturing Opticians," etc.

2. Several cases were reported in which opticians had used atropin, or determined the refraction of diseased eyes. A case of glaucoma caused by an optician's having used atropin was cited. The best optician in the state (and, by the way, a fine man personally) was reported as having fitted a pair of glasses to eyes in one of which a piece of steel was imbedded. He was present before the house committee.

3. The oculists as a whole were lukewarm in their opposition to the bill. Some were lukewarm naturally; some had acquired lukewarmness because they thought or seemed to think that atropin was not necessary to correct refraction; and some had had lukewarmness thrust upon them because they were working in conjunction with opticians or owned stock in optical houses.

HENRY B. DECHARD, M.D., Dallas, Tex.

POSTGRADUATE COURSE FOR COUNTY SOCIETIES

DR. JOHN H. BLACKBURN, DIRECTOR
BOWLING GREEN, KENTUCKY

[The Director will be glad to furnish further information and literature to any county society desiring to take up the course.]

Tenth Month

SECOND WEEKLY MEETING

EXTERNAL EAR

AURICLE

MALFORMATIONS.—Undeveloped helix, absence of lobule, microtia, polyotia.

PERICHONDRITIS.—Etiology, treatment.

OTHEMATOMA.—Pathology, treatment.

TUMORS.—Sebaceous cyst, fibroma, angioma, sarcoma, epithelioma; diagnosis of each.

CUTANEOUS AFFECTIONS.—Acute eczema; diagnosis, treatment.
Chronic eczema: symptoms, diagnosis.
Noma: pathology, diagnosis.
Lupus erythematosus: symptoms, treatment.
Lupus vulgaris: etiology, diagnosis.

EXTERNAL AUDITORY MEATUS AND CANAL

OTITIS EXTERNA CIRCUMSCRIPTA, FURUNCLE.—Etiology, symptoms, differential diagnosis.

OTITIS EXTERNA DIFFUSA.—Symptoms, prognosis, treatment.

OTOMYCOSIS.—Diagnosis, *aspergillus niger*, *A. glaucus*, treatment, recurrence.

FOREIGN BODIES IN AUDITORY CANAL.—Diagnosis, prognosis, treatment in detail for animate objects and for inanimate objects.

IMPACTED CERUMEN.—Symptoms, treatment.

SYPHILIS OF AUDITORY MEATUS.—Diagnosis, local and internal treatment.

EAR COUGH.

Medical Education and State Boards of Registration

COMING EXAMINATIONS

FLORIDA: Tallahassee, May 19-20. Sec., Dr. J. D. Fernandez, Jacksonville.
MASSACHUSETTS: State House, Boston, May 11-13. Sec., Dr. Edwin B. Harvey, Room 159, State House.
MISSISSIPPI: State Capitol, Jackson, May 11-12. Sec., Dr. S. H. McLean.
MISSOURI: Kansas City, May 17-19. Sec., Dr. J. A. B. Adcock, Warrensburg.
NEBRASKA: State Capitol, Lincoln, May 25-27. Secretary, Dr. E. J. C. Sward, Oakland.
NEW YORK: Albany, May 18-21. Mr. Charles F. Wheelock, Albany.

COUNCIL ON MEDICAL EDUCATION OF THE AMERICAN MEDICAL ASSOCIATION

Fifth Annual Conference, held at the Auditorium Hotel Chicago, April 5, 1909

(Continued from page 1457)

Report on Medical Curriculum

DR. BEVAN: I would like to make a brief statement in regard to this curriculum and this committee. The entire subject of medicine was divided into ten parts, a chairman for each part appointed, and with the chairman nine other members were selected for each section, thus providing one hundred men specially qualified in their different departments to develop a medical curriculum. This medical curriculum to be reported to-day is regarded by the Council as educational and suggestive, and is not advanced as a hard and fast requirement. In order that there should be no misunderstanding on this point, the following resolution was unanimously adopted:

> WHEREAS, The object of the Council on Medical Education in appointing this committee on curriculum was that such a curriculum should be entirely educational and suggestive; and
> WHEREAS, The impression prevails among medical teachers and members of state medical examining boards that the curriculum is being framed for the purpose of having it serve as a standard to which medical colleges must conform, or be condemned by the state authorities as not in good standing, therefore, be it
> *Resolved*, That every publication of any curriculum hereafter to be made by the Council, its members, or its officers as such, shall state explicitly that the Council does not consider it in the interests of true progress in education that any standard curriculum whatever shall be uniformly adopted by all medical colleges.

It seems to me desirable to make that statement; at the same time, I am personally—and I think all of the members of the Council are—impressed with the fact that the work done by this Committee of One Hundred is really of very great value.

MEDICAL CURRICULUM*

The following gives the complete schedule of hours in the various subdivisions of the medical curriculum as given in the reports of the ten subcommittees. At a subsequent meeting of the ten chairmen the totals for each department by vote were reduced to the figures in the third column.

Subject and Subdivision.	Hours.	Original Total.	Reduced Total.
I. *Anatomy*	...	760	700
Dissection	370		
Histology	140		
Neurology	90		
Embryology	90		
Topographical Anatomy	70		
II. *Physiology, Organic and Physiological Chemistry*	...	550	530
Organic Chemistry	80		
Physiological Chemistry	200		
Physiology	270		
III. *Pathology and Bacteriology*	...	500	500
Bacteriology (approximately)	200		
Pathology	300		
IV. *Pharmacology, Toxicology and Therapeutics*	...	268	240
Pharmacy, Chemical Toxicology and Elemental Prescription Writing	40		
mics	60		
and			
	72		
	16		
Pre-scription Writing	48		
Therapeutic Clinics and Prescription Writing	32		
V. *Medicine*	...	885	890
Physical Diagnosis, Normal	45		
Lectures or Recitations	90		
Diagnostic Clinics (Observation Classes)	30		

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* The complete reports of the various subcommittees are not ready for publication, but will be issued soon in pamphlet form and may be had on application.

Clinical Pathology	60			
Ward Classes, Diagnosis (Junior)	30			
Pediatrics (Junior)	100			
Neurology (Junior)	60			
Didactic, or Recitation, or Case Method	30			
Ward and Laboratory (Senior)	180			
Clinic and Clinical Conference	60			
Out-Patient Clinics	30			
Neurology	90			
Pediatrics	80			
VI. *Surgery*	...		680	650
Bandaging and Practice Dressing	30			
Surgical Pathology	60			
Surgical Anatomy	30			
Principles of Surgery	210			
Minor Surgery	60			
Regional Surgery	150			
Operative Surgery	50			
Orthopedic Surgery	45			
Genito-Urinary Surgery	45			
VII. *Obstetrics and Gynecology*	...		300	240
Obstetrical Lectures, Recitations, Manikin Work, etc.	120	180		
Obstetrical Clinical Work (Dispensary, Hospital and Laboratory)	30			
Amphitheater Clinics	30			
Gynecology Lectures and Recitations	60	120		
Gynecology Dispensary Clinics, "Touch Course"	30			
Gynecology Amphitheater Clinics	30			
VIII. *Diseases of Eye, Ear, Nose and Throat*	...		140	140
Eye—Didactic (Entire Class)	15	50		
Eye—Clinics (Hospital and Dispensary)	15			
Eye—Section Work (Dispensary and Hospital)	20			
Ear—Didactic	20	40		
Ear—Clinical	20			
Nose and Throat—Theoretical	20	50		
Nose and Throat—Practical	30			
IX. *Dermatology and Syphilis*	...		90	90
X. *Hygiene and Medical Jurisprudence*	...		305	120
1. Public Health and Hygiene—				
The Legal Mechanism for the Control of Disease, Federal State and Municipal	12			
Vital Statistics	4			
Transmissible Diseases and Their Epidemiology	60			
Occupational Diseases, not including infections	10			
Milk Supply in Relation to Disease	10			
Food Supply, Meat Inspection, etc.	10			
Water Supply and Sewage Disposal	20			
Sanitary Engineering and Architecture, including Plumbing, Ventilation, Hospital, School, Dwelling, and Public Sanitation, etc.	3			
Social Economics—Economic Cost of Disease	10			
Publicity in Relation to Public Health	...			
Disinfection	10			
Sanitation of Travel	5			
Inspection of Hotels and Restaurants in Relation to Cleanliness, Sanitary Facilities, etc., and also Medical Inspection of Those Who Handle Food, Water, etc.	2			
School Hygiene	10			
Hygiene of Public Institutions, for the Insane, Feeble-Minded, Deaf, Dumb, Blind and Correctional Institutions	30			
Eugenics	...			
Hygiene of Venereal Diseases. (Course to be provided and coordinates by subcommittee)	...			
Sanitary Aspects of Embalming, Funeral Direction and the Transportation of the Dead. (Course to be provided and coordinated by subcommittees:)	...			
Naval and Military Hygiene. (Course to be provided and coordinated by subcommittees.)	..			
Tropical Medicine. (Course to be provided and coordinated by subcommittees.)	..			
Personal Hygiene. (Time will vary according to amount of time chargeable to other subcommittees.)	28			
2. Medical Jurisprudence. (Time will vary according to amount of time chargeable to other subcommittees.)	60			
3. Medical Ethics, Publicity, Economics, Organization, Relationship, etc.	10			
Grand total			4,478	4,100

The Medical Curriculum from the Standpoint of the State Examining Board

Dr. George W. Webster, Chicago

I was asked a few days ago to open the discussion on this subject from the standpoint of the medical examining boards. I am very glad to do so, chiefly because it gives me the opportunity to express my appreciation not only of this kind of work, but of this particuar piece of work which this Committee of One Hundred has performed. I think from the standpoint of the examining boards, the report of this Committee of One Hundred is, without question, the most important piece of work the Council on Medical Education of the American Medical Association has ever done, and for many reasons. It is important from its educational point of view and not simply because of its value as a guide to examining boards. Of that I shall speak in a moment. In times past the curriculum of the average medical school might have been described as were the inhabitants of Europe in one of our very ancient histories, "a heterogeneous mixture of people promiscuously thrown together," and the average medical curriculum in the average medical school was, like the "peace of God that passeth all understanding." The work of this committee will help very much to correct this condition of affairs.

Now, we may inquire, Why is the medical examining board interested in a standard curriculum? The examining board is not engaged in medical teaching, but it is vitally interested in educational methods. Why? Because the examining boards have realized for a long time what many teachers and medical educators have not seemed to grasp fully when we discuss, as we do at such length, the character of the medical examination as conducted by examining boards. The examining boards must also take this position: If a young man is compelled to spend eight years at a grammar school, four years at an approved high school, the character of which is prescribed and approved, and then four years in a medical school in which there is a standard curriculum as described here this forenoon, and in which right methods are employed, then you have supervised that man's education for sixteen years, during which time the methods pursued by him in his education are correct, and the product must be good. We are interested, gentlemen, in the product. That is why state boards are interested in your methods. If your methods are correct, if the equipment is all that it should be, and we have supervised that man's education from the time he enters the grammar school until he leaves the medical school—sixteen years—I care very little whether he passes the medical examination or not, except as a matter of form. In such cases men will be better equipped for the practice of medicine because they will have been sifted out at the grammar school, the high school, and the medical school before they come to the examining board. The examining board is interested in the product and is vitally interested in the methods by which that product is produced. This work is of vital importance from an educational standpoint, but it will also be of very great value to examining boards for this reason: It is necessary for every examining board to have certain rules and to have a schedule of minimum requirements that are deemed requisite for a medical college that is to be considered in good standing. Such a schedule of minimum requirements was reported to this body a year ago, was satisfactory in every way, and similar to that which is in operation in the work of most of the examining boards. But such a schedule does not go far enough. It is not quite specific enough. For example, in the rules of each of these boards we have a rule something like this: the character of the entire equipment, including teachers, laboratory equipment, clinical facilities, etc., "shall be such as obtains in the majority of medical colleges in the United States." Well, a college says, What is the character of the equipment that obtains in the majority of medical colleges in the United States. With perhaps the exception of Dr. Bevan, Dr. Colwell, or Dr. Zapffe, or perhaps some three or four men in the hall, there is no one that knows what that average equipment is. Neither the medical colleges nor the state examining boards have had any very clear conception of exactly what that equipment should be, and even among this picked committee there is not an absolute consensus of opinion, but very nearly so, as to what should be considered a standard curriculum or standard equipment. We have a schedule of minimum requirements, as adopted last year, and which is in operation by most of the state boards. If we can go one step further and describe to a certain extent the character of that equipment, and the character of teaching methods, if you please, that should be adopted by the medical schools, you can see how much advantage that will be. Of course, I want all of you to understand clearly that I do not believe we can or should adopt a schedule of minimum requirements that specifies how many hours shall be devoted to this or that subject, and exactly the equipment that shall be considered the minimum, but I do believe the boards can give this information to the medical schools in an advisory way—at least, for the present—and can have this as a guide for themselves in the conduct of the examinations. Later on we may be able possibly to specify more exactly in regard to the number of hours, in regard to the exact equipment, but there is danger in specifying too minutely just what is demanded in the way of equipment or the exact number of hours in each individual branch.

Some five years ago I presented to the National Confederation of State Medical Examining and Licensing Boards a standard curriculum, which was not original with me, but merely a continuation of the work that had been done by others, and in which I made certain arguments in favor of such a standard curriculum, and, with your permission, I will present them here, as I think they will bear very well on the present situation, and I see no reason to materially change my mind from that time to this:

"The adoption of a standard uniform curriculum will be in the interests of an improved, as well as a higher standard of medical education. It will add symmetry to the course. It will give to each subject that relative importance which rightfully belongs to it, and no more. It will enable students to receive due credit for work done in any recognized school which adopts and conforms to this standard, thus enabling them to take the first two years in institutions remote from large cities, going to the latter for the last two years of clinical instruction. It is the most important single step toward future inter-state reciprocity on a rational basis. It will result in closing up some inferior schools of low grade. It will serve as a basis for reform in state board examinations. In most state boards all studies have equal rank, the applicant being required to answer to the same number of questions in each subject, a manifest injustice to the applicant. For example, some boards ask as many questions on physical diagnosis, gynecology, pediatrics and obstetrics, as they do in general medicine or general surgery, while the relative importance of these subjects and the relative time devoted to them is much smaller than to the major subjects."

I want to emphasize the fact that the greatest value of the work of this committee is in an educational way as a guide to the colleges in improving, standardizing and co-ordinating the work of medical teaching.

"A uniform standard will be set up for the whole country, instead of the heterogeneous regulations of state authorities. Singleness of policy will be substituted for the present unfortunate diversity of practice. It will unify and harmonize effort and will make possible the interchange of licensure, reciprocity. It will enable students to receive credit for work done and to make their scientific and laboratory instruction in one place or state, and complete their clinical course in the large cities, where there are abundant clinical opportunities.

"The medical degree will have a reasonably uniform standard of value, and will mean something to its holder.

"We realize that quantitative standards are educational evils, but sometimes it is 'any port in the storm.'

"We do not assume for a moment that what we have suggested is perfection; that we have attained the ideal; we know that after the summit is reached, all roads lead downward. We only offer this as a working plan.

"In this evolution of an ideal, or even a satisfactory, medical curriculum, I freely grant that there is no such thought in my mind as arriving at the ideal; there is no such thing as a stopping place, a resting place; but may there not be a halting place, where we may go forward as a unit, as a solid phalanx and not as stragglers, each one fighting by himself and for himself?"

(*To be continued*)

Medical Education and Nostrums, Tenth Letter

This is the last of a series of letters issued jointly by the Council on Medical Education and the Committee on Medical Teaching of the Council on Pharmacy and Chemistry:

To Medical Teachers:—This letter contains some suggestions to the clinical departments. It is especially important that the clinical instructor should set an example, to the student and hospital interne, of clean, careful and painstaking prescribing; for it is the clinical instructor who finally molds the practice of the young physician. He is the embodiment of the success for which the beginning practitioner is striving, and thus he is looked on with especial confidence and respect. His methods and ways are carefully copied in all things, and his example, therefore, is extremely potent. A thoughtless or a careless word or act may have a far-reaching influence on the student in this plastic period. One clinical department is as important as another in this respect; and the influence of the youngest assistant makes itself felt, as well as that of the department directors. Wherever nostrums are habitually used the graduates will be nostrum-prescribers. Wherever thoughtless empirical therapeutics is the fashion the graduates will be thoughtless empiricists. Wherever the clinical staff has forsaken the standard materia medica, the graduates will also forsake it.

The practice, prevailing in many hospitals and dispensaries, of prescribing frequently-used mixtures by serial numbers, or by alliterative or suggestive titles, is an example in point. It robs the student of therapeutic independence, and induces habits of indolence in prescribing, which form an easy step to the use of nostrums.

Confederation of Reciprocating Examining Boards to Meet

The annual meeting of the American Confederation of Reciprocating, Examining and Licensing Medical Boards, will be held at the Seelbach Hotel, Louisville, Ky., May 12, the session to begin at 10 o'clock a. m. Reports regarding medical curriculum, constitution and preliminary education for entrance to recognized medical colleges will be presented.

Colorado January Report

Dr. S. D. VanMeter, secretary of the Colorado State Board of Medical Examiners, reports the oral and written examination held at Denver, Jan. 5-16, 1909. The number of subjects examined in was 8; total number of questions asked, 80; percentage required to pass, 75. Thirty-two applicants were licensed at this examination, 4 of whom passed the examination, and 28 were registered on presentation of satisfactory credentials, including state licenses. Four of the applicants appearing for examination failed to make the required percentage. The following colleges were represented:

PASSED

College	Year Grad.	Per Cent.
Denver and Gross College of Medicine	(1908)	76.6, 81.7
Johns Hopkins Medical School	(1908)	86.8
McGill University, Canada	(1906)	77.5

LICENSED ON CREDENTIALS

College	Year Grad.	State Licenses.
George Washington University	(1906)	Dist. Colum.
Bennett College of Eclectic Medicine and Surgery	(1898)	Illinois
College of Physicians and Surgeons, Chicago	(1892)	Illinois
Northwestern University Woman's Medical School	(1898)	Iowa
Rush Medical College (1896) Indiana; (1906)	(1907)	Illinois
University of Iowa, Homeopathic Department	(1893)	Iowa
Medical College of Indiana	(1894)	Illinois
Kentucky School of Medicine (1893) Minnesota;	(1897)	Ohio
University of Louisville	(1901)	Indiana
Northwestern University Medical School	(1894)	Illinois
Missouri Medical College	(1898)	Oklahoma
University Medical College, Kansas City	(1908)	Kansas
Barnes Medical College	(1899)	Kansas
Ensworth Medical College	(1908)	Kansas
University and Bellevue Hospital Medical College	(1899)	New York
Columbia University, College of Physicians and Surgeons, (1903) Kentucky; (1905) New York.		
University of Buffalo	(1884)	New York
Dartmouth Medical School	(1879)	Mass.
Medical College of Ohio (*1893*)	(1907)	Ohio
Starling Medical College	(1907)	Ohio
Pulte Medical College	(1875)	Tennessee
Miami Medical College	(1907)	Ohio
Western Reserve University	(1882)	Nebraska

FAILED

College	Year Grad.	Per Cent.
Denver Homeopathic College	(1908)	63.3
Baltimore Medical College	(1908)	70.4
St. Louis College of Physicians and Surgeons	(1901)	60.
Meharry Medical College	(1908)	55.4

New Mexico January Report

Dr. J. A. Massie, secretary of the New Mexico Board of Health and Medical Examiners, reports the written examination held at Santa Fe, Jan. 11, 1909. The number of subjects examined in was 13; total number of questions asked, 108; percentage required to pass, 75. The total number of candidates examined was 6, all of whom passed. Nineteen candidates were licensed on presentation of satisfactory credentials. The following colleges were represented:

PASSED

College	Year Grad.	Per Cent.
Kansas Medical College	(1904)	78.
University of Michigan	(1907)	83.5
Medical College of Georgia	(1907)	88.
University of Nashville	(1900) 80.8; (1908)	93.
University of Tennessee	(1901)	75.5

LICENSED ON CREDENTIALS

College	Year Grad.
University of Arkansas	(1891)
Rush Medical College	(1892)
College of Physicians and Surgeons, Chicago	(1904)
Northwestern University Medical School	(1898)
Hospital College of Medicine, Louisville	(1890) (1904)
Louisville Medical College	(1886)
University of Michigan	(1906)
Barnes Medical College	(1897)
St. Louis College of Physicians and Surgeons	(1889), (1902)
Omaha Medical College	(1898)
Jefferson Medical College	(1890)
Vanderbilt University	(1884), (1886), (1893), (2, 1900)
Galveston Medical College	(1870)

Book Notices

Movable Kidney. By C. W. Suckling, M.D., M.R.C.P., Consulting Physician to the Queen's to the Children's and to the Orthopedic and Spinal Hospitals. Cloth. Pp. 155. Birmingham: Cornish Brothers, 37 New street, 1909.

This is the second edition of a work which attempts to show that movable kidney may be found very frequently if correctly sought for, and that it is the cause of a much larger number of ailments than is commonly supposed.

Suckling's position may be briefly stated as follows: If a careful and skilful examination of patients be made the right kidney can be palpated in about 6 per cent. of the males and in 40 per cent. of the females. A normal kidney can not be felt. Every palpable kidney is, therefore, a proof of a pathologic condition, and symptoms referable to this lesion may be elicited if they are sought after. Every movable kidney is not only pathologic and productive of symptoms, but is to be treated by surgery, i. e., nephropexy. Few contraindications to the operation exist, such as old age, weak heart, or advanced Bright's disease. To be sure that a loose left kidney be not untreated, there should be an exploratory incision down to this kidney whenever nephropexy is performed on the right kidney, and if the left viscus is found movable it also should be anchored in place. This exploratory operation is to be done whether the left kidney be palpable before the operation or not. The reason why every movable kidney is to be thus treated by operation is that it is sure to produce disease, chiefly through toxemia due to faulty elimination, the result of mechanical interference with its function, especially the free outflow through the ureter. These diseased conditions vary all the way from mild nervous disorders, neurasthenia, insomnia, headaches, etc., to albuminuria, hematuria, pyuria, leucorrhea, dilatation of the stomach, rectal pain, incontinence of urine, constipation, diarrhea, colitis, mucous colitis, sexual troubles, backache, epilepsy, hysteria, mental failure and insanity. "Movable kidney has now been proved to be a common cause of insanity." "When the kidneys are properly fixed up, in quite nineteen cases out of twenty the insanity is cured."

How to take such a monograph is a question. Should it be treated seriously, should argument be attempted to prove the falsity of the conclusions reached by the author, or should it be utterly ignored as unworthy of notice or be mercilessly shown up as ridiculously absurd? We are perhaps not called on to perform any of these tasks. We merely express the opinion that there is some truth in much that is said concerning movable kidney and its relation to varied forms of illness. But the work is based on such flimsy pathologic theory, the histories of cases are so slipshod, the diagnoses so loosely made, the whole book is pervaded by such intense and even offensive egotism and such ignorance of the studies and experiences of others along similar lines, it betrays such lack of a scientific and logical reasoning and such a wild jumping at unwarranted conclusions that one must in all seriousness condemn the book and be truly thankful that the author at the end of his preface says: "I do not intend to write any more on the subject of movable kidney." We can only trust that he will be true to his word.

Diseases of the Heart. By James Mackenzie, M.D., M.R.C.P. Cloth. Pp. 386, with illustrations. Price, $9.00. New York: Oxford University Press.

Dr. James Mackenzie is well-known as a writer on disease of the heart and allied subjects; especially is he an authority on the physiologic disturbances of this organ, and naturally a large part of his book is devoted to an interpretation of its physiologic action and its perversions.

Thoughtful and judicious comments and records of the author's observations and experiments are found throughout the work, which is full of originality, and, unlike many treatises, is not a mere compilation. Everything is briefly stated, there are few repetitions, and the clear, simple English makes agreeable reading. The book is copiously illustrated, chiefly with radial, carotid, jugular and apex tracings, but also with diagrams and sketches.

Dr. Mackenzie distinguishes Nothnagel's vasomotor angina pectoris from the more common form, which in his opinion is not due to hypertension, as his own measurements of arterial tension during attacks do not prove its existence. He also states that the cause of constriction of the chest, which is often severe and accompanies or follows the characteristic pain of angina, is due to spasm of the intercostal muscles. Instrumental examination of the arteries, veins and apex of the heart is described fully, but Mackenzie believes the finger to be the best determiner of the condition of the circulation. In acquiring a trained perception, however, instrumental examination is a great help. Far-reaching deductions have been drawn from variations in so-called arterial or blood pressure and diastolic pressure In his opinion the latter, as recorded by the clinical instruments usually employed, is fallacious.

The scope of the volume will be comprehended from the following list of subjects of chapters: Principles underlying the production of heart failure; fundamental functions of the heart muscle-cells; development, anatomy and physiology of the heart; preliminary examination of the patient; respiratory symptoms; reflex or protective phenomena; angina pectoris; heart affections and a hypersensitive nervous system; instrumental methods of examination; position and movement of the heart; examination of the arterial pulse; arterial pressure; venous pulse; increased frequency of the heart's action; sinus irregularities; extrasystole; the nodal rhythm; affections of the conducting functions of the primitive cardiac tissue; exhaustion of contractility; dilatation of the heart; acute febrile affections of the heart; valvular defects; cardiosclerosis; adhesive mediastinopericarditis; congenital affections of the heart; heart disease and pregnancy; chloroform in heart affections; prognosis; treatment.

Principles and Practice of Physical Diagnosis. By John C. DaCosta, Jr., M.D., Associate in Clinical Medicine, Jefferson Medical College. Cloth. Pp. 548, with illustrations. Price, $3.50. Philadelphia: W. B. Saunders Co., 1908.

This book concerns itself with the physical diagnosis of thoracic and abdominal diseases. Diseases of the head, the extremities or of the nervous system are not included. There is no consideration of special laboratory technic, such subjects as the examination of the blood, feces, urine or stomach contents being referred to only incidentally. In the discussion of physical signs especially emphasis is laid on the regional anatomy, both normal and pathologic, as well as on normal and disturbed function, as explaining the origin and mechanism of the physical signs of health and of disease. Explanations are in general clear, and there is little or no obtrusion of dogmatic opinions of the author or of a confusing mass of more or less conflicting notions of others. The book shows, as stated in the preface, that it has been carefully adapted by a practical teacher to the needs of the class-room. While some topics are considered in a manner that might at first strike one as somewhat elementary, this after all is an advantage, especially when considering the book as one suited to the needs of the undergraduates. Of very great value are the illustrations showing regional anatomy, location of physical signs, etc., together with numerous reproductions from photographs of patients suffering from the various diseases under consideration or of the organs in the morbid state in which the physical signs are to be noted. Many of these illustrations will help materially to a better understanding of the mechanism of the signs and will impress forcibly on the student the physiognomy of disease.

We question the taste of inserting some of the studies from the model. Not only is the female form not quite as well suited to the study of physical diagnosis of the chest as is the male form, but some of the models would seem to be more interested in the artistic pose and in displaying their beauty than in such prosaic things as location of painful spots, friction sounds, etc. And some of them, e. g., the one on page 153, are too suggestive of corset advertisements, or even of the photographs on sale in the streets of Paris to have a place in a book of this character.

As a whole, the book has been carefully prepared, is pervaded by a sane, judicial tone and deserves to take high rank among the good books in English on the subject of physical diagnosis. And we are pleased, on one account at least, to see physical diagnosis divorced from the more strictly laboratory diagnosis, for, while the two must always go hand in hand, it is well at the present time to emphasize the importance of auscultation, percussion, etc. There is too often seen a tendency to exalt the laboratory findings and to degrade those of the ordinary physical examination as out of date and old fashioned. Da Costa's work will serve to call attention to the fact that even *without the aid of elaborate instruments of* precision or of complicated laboratory technic, the unaided yet trained eye, ear and finger will, if guided by a logically acting brain, lead to a reasonably accurate understanding of many of the processes of disease.

Handbuch der Biochemie des Menschen und der Tiere. Herausgegeben von Prof. Dr. Phil. et Med. Carl Oppenheimer, Berlin. Instalments 2 to 14. Paper. Price, 5 marks each Jena: Verlag von Gustav Fischer, 1909.

The general statements made in the review of the first instalments of Oppenheimer's "Handbuch" (The Journal, July 11, 1908, li, 147) may be equally well applied to each succeeding issue and to the series as a whole. Further, it may be well here to direct attention particularly to the scope and thoroughness of the work, which is more deeply impressed on the reader by each additional instalment. At the end of the thirteenth instalment a general index of the whole work is given which appears to cover the entire field of biologic chemistry in its various branches and divisions.

In the later instalments there appear sections devoted to the following subjects: "Proteins," "Animal Coloring Matter," "Colloids," "Chemistry of the Cells," "Blood and Lymph," "Secretory Glands and Secretions," "Digestion," "Gases of the Body and their Interchange" and "Food Metabolism." Under each of the above main headings from one to eleven subchapters are incorporated, each chapter an exhaustive work on the particular phase it covers, full of the latest findings of biochemic research and of valuable references, thus covering the subject-matter in a most thorough manner.

The series, taken as a whole, must be regarded as a well-planned compilation of the latest and best work in biologic chemistry covering the whole field and a reference book in this branch of chemistry which has no equal. While the handbook can not be recommended as a text for general reading, as a comprehensive and up-to-date work of reference it should be assured a place in the libraries of those interested in the subject.

Report of an Investigation of Water and Sewage Purification Plants in Ohio. Made Under Authority of an Act of Legislature, Passed Feb. 23, 1906. 1906-1907. Cloth. Pp. 888. Columbus: F. J. Heer, *State Printer*, 1908.

This volume comprises one of the most important contributions made to sanitary practice by American engineers. Unlike the classic studies on water and sewage purification conducted by the Massachusetts State Board of Health, it deals not so much with specially devised *experiments* as with the problems arising in the operation of existing water filtration plants and sewage disposal systems. The book has the merits and the defects of such a treatment. While it lacks of coherence and orderly arrangement, it possesses the advantage of giving a comprehensive survey of the whole field and an epitome of the present state of the best practice and opinion in a commonwealth that ranks as one of the foremost in sanitary matters. In its conception and in the main in its execution the report may serve as a model for other states.

Only one special point may be mentioned here, although we may have occasion to refer to some other features of this report later; this is the great stress laid on the necessity of providing expert management and control for both large and small plants. "Ignorance and carelessness in operation, and even absolute neglect . . . are responsible for most of the failures." No matter how thorough and long-continued the preliminary experimentation, if the completed plant is left to the mercy of an inexperienced and untrained engineer the results are sure to be unfortunate. The United States is slowly and painfully learning that energy and goodwill can not take the place of capacity and training. This Ohio report contains many suggestions for sanitarians and health authorities; the large amount of assistance and guidance that a thoroughly informed state board of health can render to grouping local officials is certainly not one of the least valuable.

A First Study of the Inheritance of Vision and of the Relative Influence of Heredity and Environment on Sight. Eugenics Laboratory Memoirs V. By Amy Barrington, of the Galton Eugenics Laboratory, and Karl Pearson, F.R.S. Paper. Pp. 61. Price, 4 shillings. London: Dulau & Co., 37 Soho Sq. W., 1909.

The work of Miss Barrington and Mr. Pearson is conducted in accordance with well-established principles of statistical investigation, and serves to exhibit the marked influence of heredity *as compared with a minor action of environment in* determining defects of vision. Doubt is thrown on the theory that school work produces myopia and it is suggested that the increasing number of myopics shown in the higher classes is evidence of a law of growth and selection and not due to environment. The necessity of more careful statistical work, dealing with larger numbers of pupils and covering all classes without selection, is emphasized, but the authors are of opinion that the results of their work show a preponderating influence of the hereditary factor.

Practical Bacteriology, Blood Work and Animal Parasitology. By E. R. Stitt, A. B., Ph.G., M.D., Surgeon, U. S. Navy. Cloth. Pp. 294, with illustrations. Price, $1.50. Philadelphia: P. Blakiston's Son & Co., 1909.

This little book is concerned chiefly with methods, outlining briefly the interpretations from these methods. By far the larger part of the book is given over to bacteriology, including keys for identification of organisms, methods in immunity, such as hemolysis, etc., and the clinical bacteriology of the eye, mouth, nose, feces, etc. The discussions of animal parasites and of molds are especially commendable. The two chapters on blood work are brief. On the whole the book is satisfactory.

Fun in a Doctor's Life. By Shobal Vail Clevenger, M.D. Cloth. Pp. 291. Price, $1.00. Atlantic City, N. J.: Evolution Publishing Co., 1909.

Dr. Clevenger has supplied us with a rather disconnected autobiography in this work, and it would seem that he had plenty of material, since he has had an adventurous life. Born in Italy, his boyhood spent in St. Louis, Cincinnati and New Orleans, in his later life he was an Indian trader on the plains, a soldier in the Civil War, a newspaper editor, a magistrate, a telegraph operator, a government surveyor, a steamboat man, a signal service observer, a printer, then a medical student, an asylum official and superintendent, and a neurologic specialist. This variety of occupation, the details of which are scattered discursively through *the book, has certainly* given a spice to life in his special case. His experiences with politicians in asylums are vividly told. In some instances he fails to do justice to one or two worthy members of our profession, but no more, we regret to say, than he does to himself in one or two places in his book. In fact, we should say that it is here and there somewhat inconsiderately written. There is considerable basis of truth, however, in what Dr. Clevenger says concerning the political management of insane hospitals.

Guide to the Clinical Examination and Treatment of Sick Children. Ed. 2. By John Thomson, M.D., Fellow of the Royal College of Physicians of Edinburgh. Cloth. Pp. 629, with illustrations. Price, $3.75. Chicago: W. T. Keener & Co.

This little volume commends itself to the reader as a practical and useful one. It approaches the subject rather from a clinical than a purely didactic standpoint and in many ways supplements the standard text-books, while in no way intended to supplant them. Thus Dr. Thomson devotes 13 pages to pyloric stenosis, and nearly 40 pages to mental defects, while infant-feeding is dismissed with about 30 pages. This tendency is further seen, and advantageously, in the many excellent and original illustrations, notably of pyloric stenosis, meningitis, chloroma, and of that interesting and, in this country, rare lesion, rheumatic nodules. The book distinctly reflects the ideas, methods and interests of one of the great English teachers of clinical pediatrics, and should find a welcome among us.

Marriages

Elam T. Murphy, M.D., to Miss Mabel Mary Brassil, both of Chicago, April 26.

William Eslen Hauk, M.D., to Miss Mabel Botkin, both of Duquesne, Pa., April 21.

J. A. McCoy, M.D., to Miss Pauline E. Simmons, both of Picayune, Miss., April 12.

George A. Cameron, M.D., to Mrs. Henry R. Moore, both of Philadelphia, April 21.

Harold Edwin Holbrook, M.D., to Miss Enid Elizabeth Scott, both of Milwaukee, April 14.

John P. Turner, M.D., Philadelphia, to Miss Mary C. Harris of Washington, D. C., April 15.

Frank E. Thomas, M.D., Mason, Mich., to Miss Ada Lyon of Bowbells, N. D., at Chicago, April 20.

Lawrence Henry Hill, M.D., Greenway, Ark., to Miss Celia Blair Keller of Centralia, Ill., April 21.

John C. Kirby, M.D., to Miss Bertha McNeeley, both of Cedar Vale, Kan., at Winfield, Kan., April 19.

Lloyd W. Stephenson, M.D., Washington, D. C., to Miss Mary Virginia Haswell, at Baltimore, April 20.

Rosslyn Phillip Harris, M.D., Athens, N. Y., to Miss Susan Marion McKenna of Rhinebeck, N. Y., April 21.

Deaths

Ezra Mitchell, M.D. Dartmouth Medical School, Hanover, N. H., 1867; a member of the American Medical Association; and one of the best known practitioners of northern New Hampshire; a medical cadet with the Eighth Maine Volunteer Infantry during the Civil War; at one time president of the New Hampshire Medical Society; from 1882 to 1885 surgeon general of the state; a member of the legislature; a constant advocate of the state tuberculosis sanatorium which he lived to see constructed at Glencliff; president of the Lancaster Savings Bank and Lancaster Trust Company; died at his home in that city, April 20, aged 67.

John William Caughlin, M.D. Trinity Medical College, Toronto, Ont., 1879; a member of the American Medical Association; at one time president of the Bay County, Mich., Medical Society; a member of the staff of Mercy Hospital, Bay City; for ten years a member and eight years president of the local board of health; a member of the local board of pension examining surgeons, and for four years its president; died at his home April 20, from nephritis, aged 53.

Henry Erskine Pressly, M.D. University and Bellevue Hospital Medical College, New York City, 1899; of Birmingham, Ala.; a member of the American Medical Association; visiting surgeon to St. Vincent's Hospital and local surgeon for the Louisville and Nashville, and Seaboard Air Line railroads; died in Johns Hopkins Hospital, Baltimore, April 23, aged 34.

Hugo A. Auler, M.D. Washington University, St. Louis, 1890; of St. Louis; a member of the Missouri State Medical Association; consulting physician to St. Louis City Hospital; physician to Mount St. Anne's Consumption Hospital and Mount St. Rose's Hospital; died in Elgin, Texas, April 20, from heart disease, aged 41.

Michael P. Reynolds, M.D. St. Louis University School of Medicine, 1901; a member of the American Medical Association; formerly a member of the medical staff of St. Francis Hospital, Colorado Springs; and secretary of El Paso County Medical Society; died at his home in St. Louis, April 17, from pneumonia, aged 42.

Charles Richard Moxley, M.D. Queen's University, Kingston, Ont., 1905; of North Bay, Ont.; a member of the Ontario Medical Council; died in the Royal Victoria Hospital, Montreal, March 20, from appendicitis and pelvic peritonitis, with intestinal obstruction, for which several operations had been performed, aged 26.

Allen Sidney Whetstone, M.D. University of Michigan, Ann Arbor, 1880; formerly professor of operative surgery and preventive medicine in the Minneapolis College of Physicians and Surgeons; a veteran of the Civil War, and surgeon to George N. Morgan Post, G. A. R.; died at his home in Minneapolis, April 19.

Hugh A. Maughlin, M.D. University of Maryland, Baltimore, 1864; assistant surgeon of the Sixth Maryland Volunteer Infantry during the Civil War; for four terms adjutant general of the department of Maryland, G. A. R.; since 1877 an inspector of customs in Baltimore; died at his home from pleurisy, April 17.

John Hutchins Gaines, M.D. Tulane University, New Orleans, 1853; a charter member of the Garland County-Hot Springs (Ark.) Medical Society; died at his home in that city, April 19, aged 77. At a special meeting of the medical society, April 21, resolutions of regret and sympathy were unanimously adopted.

Alfred Quin Donovan, M.D. Bellevue Hospital Medical College, New York City, 1882; of Elizabeth, N. J.; a member of the American Medical Association; attending surgeon and chief of staff to Alexian Brothers' [illegible] died in that institution, April 26, after operation for cancer of the liver, aged 52.

Willoughby Hector Gunn, M.D. American Eclectic Medical College, Cincinnati, 1880; died at his home in Oklahoma City, Okla., from the effects of morphin believed to have been self-administered with suicidal intent, while despondent on account of cancer of the throat, aged 59.

Alexander Miller Campbell, M.D. Western Reserve University, Cleveland, 1880; a veteran of the Civil War; a member of the Seneca county, Ohio, board of pension examining surgeons; died suddenly from cerebral hemorrhage, at his home in Tiffin, April 22, aged 62.

John W. Berry, M.D. College of Physicians and Surgeons, Baltimore, 1884; a member of the West Virginia State Medical Association; died at his home in Flatwood, April 21, from poisoning by carbolic acid taken in mistake for aromatic spirits of ammonia, aged 45.

Willis Alston, M.D. University of Maryland, Baltimore, 1869; a member of the Medical Society of the State of North Carolina, and one of its founders; for six years a member of the State Board of Medical Examiners; died at his home in Littleton, April 20, aged 62.

William P. Via, M.D. Washington University, St. Louis, 1872; for more than twenty years a practitioner of Oregon, and once coroner of Washington county; a Confederate veteran; died at his home in Forest Grove, April 17, aged 66.

John E. W. Sanderson, M.D. College of Physicians and Surgeons, New York City, 1886; visiting neurologist to St. Mary's and the Eastern District hospitals, Brooklyn; died at his home in New York City, April 19, from heart disease, aged 49.

Charles William Littleton, M.D. College of Physicians and Surgeons, Keokuk, Iowa, 1866; for four years treasurer and later commissioner of Labette county, Kan.; died at his home in Oswego, March 29, 1908, from bronchitis, aged 76.

Thomas Houston Garvin, M.D. University of Louisville (Ky.) 1875; a member of the Kentucky State Medical Association, and a Confederate veteran; died at his home in Horse Cave, April 20, from heart disease, aged 67.

Edwin W. Pugh, M.D. Vanderbilt University, Nashville, 1893; a member of the Florida Medical Association; and president of the Dade County Medical Association; died at his home in Miami, April 18, from tetanus, aged 42.

Zachariah Pleasant Glass, for fifty-eight years a practitioner; formerly proprietor of Elmwood Park Sanitarium, Hannibal, Mo.; died at his home in San Bernardino, Cal., from senile debility, March 16, aged 88.

George Augustus Ingram (license, Luzerne county, Pa.); for thirty-nine years a practitioner of Summit Hill and Lansford; died in Bryn Mawr, Wales, Dec. 1, 1909, from cerebral hemorrhage, aged 71.

Theodore Parker Crosse, M.D. Rush Medical College, Chicago, 1879; a member of the State Medical Society of Wisconsin; died at his home in Sun Prairie, April 20, from erysipelas, aged 53.

John Kilgour White, M.D. University of Maryland, Baltimore, 1884; of Woodland, Md.; died suddenly from pneumonia, while making a professional call, April 4, aged 48.

Eli Gilmore McDivitt, M.D. Miami Medical College, Cincinnati, 1873; of Richmond, Ind.; died in the Reid Memorial Hospital in that city, April 18, from senile dementia, aged 62.

Minnora Sprague Marshall, M.D. University of Michigan, Ann Arbor, 1896; formerly of Montpelier, Va.; of Fruitvale, San Francisco; died at her home April 10, from cancer, aged 39.

James Robie, M.D. Vermont Medical College, Woodstock, 1853; a pioneer practitioner of Black River Falls, Wis.; died at his home in that city from heart disease, April 21, aged 82.

William Vincent Shaffer, M.D. Miami Medical College, Cincinnati, 1880; formerly of Middletown, Ohio; died in the German Hospital, Newark, N. J., April 21, from pneumonia, aged 55.

Josephus Davis, M.D. Western Reserve University, Cleveland, 1860; at one time mayor of New Carlisle, Ind.; died at his home in that place, April 18, from pneumonia, aged 74.

Daniel Futrell (license, Ky., years of practice); a practitioner of Kentucky for more than fifty years; died at his home in Melber, February 26, from heart disease, aged 83.

Robinson John Cotton (license, Tenn., 1889); of Memphis; a Confederate veteran; died in Memphis, Nov. 24, 1908, after an operation for the removal of gallstones, aged about 62.

John T. Bethel, M.D. Kentucky School of Medicine, Louisville, 1870; a member of the American Medical Association; died at his home in Henderson, Ky., April 23, aged 70.

William Abel Lytle, M.D. University of Tennessee, Nashville, 1902; of Oklahoma City, Okla.; died at his former home in Eagleville, Tenn., April 12, from tuberculosis, aged 36.

William H. Shaffer, M.D. Starling Medical College, Columbus, Ohio, 1881; formerly of Columbus; died in Elkhart, Ind., April 4, from tuberculosis of the kidney, aged 65.

David Dunlap Oates, M.D. University of Pennsylvania, Philadelphia, 1860; of Merkel, Ala.; died suddenly in Birmingham, Ala.; April 23, from heart disease, aged 74.

Andrew J. B. Jenner, M.D. London, England, 1859; afterward a clergyman and bishop of the Anglican Church; died at his home in Detroit, Mich., April 15, aged 72.

Julius M. Gilbert, M.D. Georgia College of Eclectic Medicine and Surgery, Atlanta, 1882; died at his home in Danville, Ga., April 7, from general debility, aged 62.

Jesse McCoy (license, Iowa, 1886); a member of the Iowa State Medical Society; died at his home in Fort Madison, April 16, from heart disease, aged 72.

Cooper Fenimore McBride, M.D. University of Pennsylvania, Philadelphia, 1875; died at his home in Youngstown, Ohio, from pneumonia, April 13, aged 58.

Frank Levasseur, M.D. University of the Victoria College, Coburg, Ont., 1886 died at his home in Haverstraw, N. Y., March 29, from uremia, aged 47.

James P. Bone, M.D. Kentucky School of Medicine, Louisville, 1859; a Confederate veteran; died at his home in Arlington, Tenn., April 11, aged 77.

Lambert Laurens, M.D. Iowa Medical College, Keokuk; of Le Sueur county, Minn.; was burned to death March 21, near Montgomery, Minn., aged 60.

Edward J. Dickinson, M.D. Albany (N. Y.) Medical College, 1866; died suddenly at his home in Corydon, Iowa, April 19, from heart disease, aged 70.

Thomas S. Potter, M.D. Medical College of Ohio, Cincinnati, 1869; died at his home in Carthage, Cincinnati, April 20, from pneumonia, aged 75.

James M. Chadwick, M.D. Vanderbilt University, Nashville, 1890; died suddenly, April 19, at his home in Murfreesboro, Tenn., from heart disease.

Henry Bascon Burkett, M.D. College of Physicians and Surgeons, Baltimore 1878; of Hillsboro, Ala.; died in Birmingham, Ala., April 23.

Robert J. Jordan, M.D. Eclectic Medical College of the City of New York, 1881; died at his home in Philadelphia, April 18, aged 79.

Casimir A. Landrum, M.D. Tulane University, New Orleans, 1876; died at his home in DeFuniak Springs, Fla., April 23, aged 70.

Henry King McLean, M.D. Albany (N. Y.) Medical College, 1850; died at his home in Hoosick Falls, N. Y., April 7, aged 84.

Society Proceedings

COMING MEETINGS

American Medical Association, Atlantic City, June 8-11.

American Academy of Medicine, Atlantic City, June 5-7.
Am. Assn. of Genito-Urinary Surgeons, Pocono, Pa., May 31-June 1.
Am. Climatological Association, Fortress Monroe, Va., June 4-5.
American Confederation of Reciprocating, Examining and Licensing Medical Boards, Louisville, May 12.
American Dermatological Association, Philadelphia, June 3-5.
Am. Gastro-Enterological Association, Atlantic City, June 7-8.
American Gynecological Society, New York, May 27-29.
American Laryngological Association, Boston, May 31-June 2.
American Laryn., Rhin. and Otol. Society, Atlantic City, June 3-5.
American Medico-Psychological Assoc., Atlantic City, June 1-4.
American Neurological Association, New York, May 27-29.
American Orthopedic Association, Hartford, Conn., June 14-16.
American Pediatric Society, Lenox, Mass., May 27-28.
American Proctologic Society, Atlantic City, June 7-8.
American Surgical Association, Philadelphia, June 1-3.
American Therapeutic Society, New Haven, Conn., May 6-8.
American Urological Association, Atlantic City, June 7.
Arizona, Medical Association of, Prescott, May 19-20.
Arkansas, Medical Society of, Pine Bluff, May 18-21.
Association of American Physicians, Washington, D. C., May 11-12.
Con. of State and Prov. Bds. of No. Am., Washington, June 4-5.
Connecticut State Medical Society, Hartford, May 26-27.
Illinois State Medical Society, Quincy, May 18-20.
Iowa State Medical Society, Dubuque, May 19-21.
Kansas State Medical Society, Emporia, May 5-7.
Louisiana State Medical Society, New Orleans May 4-6.
Maine Medical Association, Portland, June 16-17.
Maryland, Med. and Chir. Faculty of, Baltimore, May 13-15.
Massachusetts Medical Society, Boston, June 15-16.
Missouri State Medical Association, Jefferson City, May 18-20.
Montana State Medical Association, Missoula, May 12-13.
Nat. Assn. for Study and Prevention of Tuberculosis, Washington, D. C., May 13-15.
Natl. Con. State Med. Ex. and Licensing Bds., Atlantic City, June 7.
New Hampshire Medical Society, Concord, May 13-14.
New Jersey Medical Society, Cape May, June 23-25.
North Dakota State Medical Association, Fargo, May 11-12.
Rhode Island Medical Society, Providence, June 4.
Texas State Medical Association, Galveston, May 11-13.
Wisconsin State Medical Society, Madison, June 30-July 2.

AMERICAN GYNECOLOGICAL SOCIETY

Thirty-fourth Annual Meeting, Celebrating the Centennial of McDowell's Operation, held in New York City, April 20-22, 1909

The President, Dr. J. Riddle Goffe, in the Chair.

An address of welcome was delivered by Dr. Clement Cleveland, New York, and was responded to by Dr. J. Montgomery Baldy, Philadelphia.

SYMPOSIUM ON CESAREAN SECTION; INDICATIONS IN PLACENTA PRÆVIA, AND THE JUSTIFIABILITY OF STERILIZATION IN THIS CONDITION

Cesarean Section in Placenta Prævia

Dr. Charles Jewett, Brooklyn, N. Y.: The essential consideration in weighing the claims of Cesarean section as against obstetric measures in placenta prævia are blood loss, shock of operation and life-saving possibilities to the child. The lessened risk of infection and of uterine lacerations have some force, but the question of sepsis scarcely disturbs the balance.

and lacerations are largely the result of avoidable violence. Accidents of obstetric manipulations in the matter both of infection and of uterine injuries, while not wholly preventable, belong more to past than to present day methods. Subsidiary questions which must be considered are existing anemia and exhaustion, the extent of implantation, the stage of dilatation, and the dilatability of the cervix, the viability of the child. While in certain cases eclampsia, pelvic contraction or narrow vagina may determine the choice, here the indication is concerned with the complication more than the faulty placental insertion. Our present concern is with placenta prævia as of itself an indication for the Cesarean operation. In complete placenta prævia, and when complicated with an undilated and rigid cervix, abdominal section claims consideration. Certain of the more conservative sectionists accord a place to the Cesarean operation in these conditions when it can be performed in a hospital. But the benefits of a hospital environment obtain in a similar measure for obstetric delivery. Even in complete previal implantation, and with undilated cervix, bleeding is amenable to one or more of the usual obstetric procedures, gauze tamponnade or water bag, within the cervix, or the latter passed through the placenta, podalic version. Grave hemorrhage in placenta prævia is due more to failure in the timely and well directed use of the obstetric measures at our command than to any lack of them. With ligation of the uterine arteries, as proposed by Miller of Pittsburg, I have had no experience in vicious implantation of the placenta. We know its value in certain other uterine hemorrhages, and, if its author's claims are borne out by further trial, nothing more is required for the management of the kind of hemorrhage under discussion. From the standpoint of shock, the major operation is at a signal disadvantage. The abnormal implantation is seldom or never recognized until bleeding has begun. Abdominal section is a grave risk after much hemorrhage In a greatly depleted patient it is almost certainly fatal. Cesarean section, once begun, must be carried to completion, whatever the condition of the woman. It admits of no waiting for recuperation. On the other hand, no shock attaches to the introduction of a hydrostatic bag, and little or none to a Braxton-Hicks version. The obstetric procedure may be moderated to suit the needs of the individual case Bleeding controlled, time is permitted for returning strength and a slow and gradual dilatation and delivery entail a minimum of tax. In a considerable proportion of cases expulsion or extraction is made easier by immature fetal development. In nearly 25 per cent. the child is non-viable, and here often extraction may be simplified by craniotomy. As between a skilful section and an equally skilful obstetric delivery, less shock should obtain in the latter.

The principal claim for Cesarean section in placenta prævia is its diminished fetal mortality. Under obstetric treatment the death rate of the child is formidable. For this, three causes are responsible—prematurity, the effect of maternal blood loss, and the delay and traumatism incident to delivery by the natural passages. In practically all cases the resistance of the fetus is in greater or less degree impaired by maternal hemorrhage. A large proportion of the children are doomed to death, whatever the method of delivery. Of the possibly viable children, Cesarean section may save many lives, but by no means all. Vaginal Cesarean section has no greater claim to consideration than the suprasymphyseal operation. While it may offer quite as good a prognosis for the mother, the chances for the child are not as good, owing to the somewhat greater fetal risks in extraction through the natural passages. Not only do we find little rational basis for Cesarean section in placenta prævia, but its claims receive scant support from experience. In 2,010 cases of placenta prævia from the German, French and Italian literature of the last two years, the maternal mortality under obstetric methods of delivery was 221, 10.9 per cent, the fetal 1,159, 57.3 per cent ; 726 of these cases, reported by Futh, were collected from the practice of midwives and general practitioners. Many patients were subjected to prolonged tamponnade and were examined by needless hemorrhage. Exclusive of Futh's cases the maternal mortality was 6 + per cent, and the fetal 68.8 per cent. Comparing these results with those of 95 abdominal Cesarean operations collected from seven publications, all but one of the last year, we find in the latter a mortality of 11.5 per cent. for the mothers, and 34 per cent. for the children. Sellheim, in one vaginal Cesarean section, saved both mother and child In twelve uterovaginal sections reported by Bumm the maternal deaths were 8.3 per cent., and the fetal 83.3 per cent Hammerschlag refers to twenty-six vaginal Cesarean sections, with a fetal dath rate of 55 per cent. How many mothers were lost he fails to say. The few vaginal operations make a better showing for the mothers than the abdominal, but the percentage of fetal deaths is no less tnan under obstetric methods. If conclusions may be formulated on so small a number of cases, the "Cesareanists" have not yet established their cause.

The Indications for Abdominal Cesarean Section in Placenta Prævia

Dr. Henry D. Fry, Washington, D. C.: The principal dangers to be overcome by the obstetric treatment of placenta prævia are hemorrhage, laceration of the uterus and sepsis Delivery from above escapes these dangers to a great extent, because removal of the infant and placenta by a Cesarean section does away entirely with the first and second stages of labor. Abdominal Cesarean section, however, brings dangers of its own; shock, sepsis, acute dilatation of the stomach, and other postoperative complications The indications for the classical Cesarean section are primiparity, small vagina, rigid and undilatable cervix, and placenta prævia centralis. This combination will be encountered in about 5 per cent of all cases of placenta prævia; therefore, the purely obstetric management will best meet the indications of 95 per cent. of cases The indications for Porro Cesarean section include those women who have been subjected to preliminary obstetric interference, plus the classical Cesarean indications mentioned.

The Advisability of Cesarean Section in the Treatment of Complete Placenta Prævia

Dr. Francis S. Newell, Boston: The advocates of Cesarean section claim that the maternal mortality under the ordinary methods of treatment is so great that some change must be made. Hirst states that in the hands of the general practitioner a mortality of approximately 40 per cent. is present in complete placenta prævia, but believes that in the hands of experts the ordinary mortality should be in the neighborhood of 1 per cent., or, in other words, an accidental mortality Other authorities admit a mortality varying from 3 to 6 per cent. in a large series of cases, presumably under the care of experts. The maternal mortality from abdominal Cesarean section for placenta prævia is variously given as from 20 per cent. upwards even in expert hands, and it seems probable that if abdominal Cesarean section is adopted as the routine treatment by the profession as a whole, a constant high mortality will be maintained, since the results of surgery performed by the general practitioner are always worse than those obtained by competent abdominal surgeons. While the maternal mortality in the hands of an expert averages from 3 to 5 per cent, in the hands of the general practitioner the mortality is 40 per cent. The fetal mortality in cases of complete placenta prævia varies from 60 to 65 per cent. under the ordinary methods of treatment, and it would seem at first sight that this was the indication for the performance of Cesarean section. However, any one who studies carefully the causes of the fetal death rate, must be impressed with the fact that no such improvement in statistics is to be expected as would seem probable at first sight. If there is any factor which claims recognition in determining the advisability of substituting Cesarean section for the ordinary methods of treatment of placenta prævia, it would seem that the morbidity attendant on dilatation and extraction is the one. There can be no doubt but that the trained surgeon, who has had no obstetric training, will have better results in treating placenta prævia by Cesarean section than if he tried to perform an operation with which he has had little or no experience. The advocates of Cesarean section have not recognized that their personal limitations furnish the great indication for an abdominal delivery, and not the exigencies of the case Recently vaginal Cesarean section has been urged as the best solution of the problem, and the advocates of this operation claim that it is simple and easy for the trained surgeon and carries much less risk with it than the abdominal delivery, but my feeling, based on a limited experience with the operation, is that it is not so simple a procedure, even in uncomplicated cases, as is commonly stated, and I feel that, although in the rare cases in which the cervix is more or less rigid, it is probably a safer operation than abdominal delivery, as a routine procedure, in complete placenta prævia it has few, if any, advantages over the methods heretofore in use.

Cesarean Section in Placenta Prævia

Dr Egbert H Grandin, New York: Except when the patient may be kept under constant observation, the rule should be to empty the uterus as soon as the diagnosis is made, rarely, therefore, will the question of Cesarean section offer. Less radical means will suffice from the standpoint of the woman, and in marginal instances for the child In central implantation near or at term the child may be disregarded, and unless the cervix be diseased, undilatable and not incisable, the question of Cesarean section will not offer When time permits, if the vaginal portion has merged, dilating measures suffice associated with the Dührssen operation In marginal instances, the vaginal Cesarean section may enter into consideration

Sterilization in Cesarean Section

Dr John Osborne Polak, Brooklyn, N Y · I feel that the obstetric surgeon should sterilize the woman who is subjected to a Cesarean section, first, if she request the procedure, second, after the second section in the presence of the absolute indication if the proper consent can be obtained, third if the pathologic conditions present necessitate extirpation of the uterus in the interests of the patient s life and health, sterilization may be done, if necessary, without consent In elective and uncomplicated hysterotomies, excision of the proximal ends of the Fallopian tubes at their origin in the uterus and occlusion of the severed end by flattening it out and suturing it to the peritoneum on the posterior fundal wall is the operation of choice When infection, disease or atony with uncontrollable hemorrhage of the uterus is present, hysterectomy or the Porro operation should be elected, to secure to the patient immunity from future conception and gestation Finally, whenever possible, one or both ovaries should be retained in order that an operative menopause may be averted

The Justifiability of Sterilizing a Woman After Cesarean Section, with a View to Preventing Subsequent Pregnancies

Dr Charles M Green, Boston It is ethically and morally unjustifiable to sterilize a woman in performing Cesarean section, even if she and her husband request it The burden of proof to the contrary rests with those who advocate it Opportunity may properly be taken, in performing Cesarean section, to remove pathologic organs, and the result may be that the woman can never again become pregnant, as in bilateral salpingo oophorectomy, or in hysterectomy for neoplasms But in the presence of disease requiring total ablation of the pelvic generative organs, pregnancy could not again occur were the organs not removed If the indication for Cesarean section is absolute, and husband and wife are so informed, they may abstain from subsequent pregnancies If the indication is relative, and the disproportion of minor degree, the woman subsequently may be safely delivered of living children, she may deliver herself In either case, experience teaches that repeated section may be performed as safely as the primary operation A husband and wife may not ethically ask that either be sterilized with a view to preventing pregnancy and avoiding repeated section If such a request is made and acceded to, not only is the operation morally wrong, but in the event of a second marriage may be bitterly regretted I furnish statistics in support of these opinions

Discussion on Cesarean Section

Dr Albert F A King, Washington, D C In discussing this subject, we must bear in mind that obstetrical patients must be divided into two classes, those who can be treated in hospitals with surgical aid and those who are treated in their homes without surgical aid, as, for instance, women in the country In considering any method of treatment, those two classes must be borne in mind

Dr Herbert Spencer, London, England I have had little experience with abdominal Cesarean section or vaginal Cesarean section in the treatment of placenta prævia My own treatment has been usually Braxton Hicks version, and leaving the case to Nature, delivery usually being effected in this way without any further hemorrhage in the course of about three hours, on an average, but this method results in a high fetal mortality We must consider whether we are going to take into account the mother or the child, or both The use of the Champetier de Ribes bag is exceedingly valuable, and while I have not had much experience with it myself, my colleague has had, and says that it reduces the mortality of the children considerably, with some increased mortality among the mothers If Cesarean section is indicated, the abdominal is perferable to the vaginal route

Professor Hofmeier Würzburg, Germany In my opinion, the treatment of placenta prævia by abdominal section is limited to a small percentage of cases because it is practically impossible for the general practitioner to follow out this method of treatment The old method of combined version and extraction, generally accepted in Germany, and treatment by means of metreurynters in case of large and strong children has given good results

Dr E W Cushing, Boston I do not think that any one has a right to determine whether a woman shall be sterilized or not A woman's body belongs to herself If she has been malformed by Nature and can not be delivered of a child without repeated surgical operations which involve the risk of life, and she desires to avoid that subsequent risk by having a sterilizing operation done she has a right to do so

Dr Henry D Fry, Washington, D C My rule is to explain the situation to the woman and her husband and allow them to decide whether or not she shall be sterilized I do not believe we can make a dividing line, on account of the social position of the woman

Professor Hofmeier I have performed sterilization not only with the consent of the woman and her husband, but at their urgent request I do not think it is possible for women to abstain from subsequent pregnancy, as indicated by Dr Green

Dr Charles Jewett, Brooklyn. I performed Cesarean section two months ago on a woman on whom I did the same operation two years previously, and at the request of both the husband and wife I felt justified in doing an operation of this character I resected the tubes from the cornu of the uterus, then simply caught the end of the tube down on the suture line

Dr Herbert Spencer, London I do not consider we are justified in saying, in the absence of pathologic conditions, such as fibroid tumors, cancer or infection, that a woman shall not have any more children From a purely ethical standpoint, I can not see any difference between consenting to operate on a woman and preventing her from having children by this sterilization operation and committing an abortion because she asks it The so called sterilizing operation is not always reliable A distinguished abdominal surgeon in England supposedly sterilized a woman, but subsequently, much to her annoyance and mortification, she again became pregnant, and I delivered her of a child I delivered this woman for the seventh time after so called sterilization

Dr J Montgomery Baldy, Philadelphia Nature has so arranged matters that some women, apparently healthy, will not bear children Pathologic processes set in which render them incapable of bearing children A woman is not in this world to be a beast of burden, although she has reproductive duties to perform, and there comes a time when, after she has performed those to the best of her ability, Nature has so deformed her, perhaps maimed her, that she no longer can be delivered of a child without a surgical operation, and for the sake of her health, comfort and happiness, she is the be t arbiter as to whether sterilization shall be done or not. My sympathies go out largely to women in this respect. If a woman, guided by the conscientious judgment of the physician, decides to be sterilized, we have a right to sterilize her and prevent reproduction in the future in this individual case, but this does not mean that this operation should be done on every woman who requests it.

Dr. Andrew F. Currier, New York: I place myself on the side of those who believe that it is an injustice to a woman, aside from any desire she may have for children, to subject her repeatedly to an operation which risks her life. The desire for offspring is a natural and proper one in most cases. The mere physical conditions alone which result, or are likely to result, should be a strong argument and should influence us materially in regard to the question of future pregnancy.

Dr. Seth C. Gordon, Portland, Me.: A woman has a right to say whether she shall be sterilized or not. Oftentimes a woman will say, "Doctor, I don't want a child." But when she is subjected repeatedly to an operation which we know to be dangerous to life, in order to be delivered of a child, she certainly has a right to say whether or not sterilization shall be performed.

Dr. C. C. Frederick, Buffalo: I have sterilized women at their request and at that of their husbands in cases in which Cesarean section had been done for the absolute indication, with narrowing of the pelvis to a degree that it was absolutely impossible to deliver a viable child through the pelvis.

Dr. Albert F. A. King: Self-preservation is the first law of nature, and preservation of the species is the second law. I agree with those who have expressed the opinion that women and their husbands have a right to decide this question of sterilization.

Dr. J. Wesley Bovee, Washington, D.C.: I concur in the view that the husband and wife should decide whether the woman is to become pregnant or to be sterilized, but the surgeon has not the right to act as he chooses to produce sterility. The decision of the question rests largely with the husband and wife, and not with the surgeon. The surgeon has no right to remove a woman's possibility of future pregnancy except for grave pathologic lesions in the organs of generation themselves.

The subject was further discussed by Drs. George Gellhorn, Willis E. Ford, Egbert H Grandin, Philander A. Harris, and the discussion was closed by the various essayists.

What Shall We Teach the General Practitioner Concerning the Treatment of Abortion?

Dr. Frederick. J. Taussig, St. Louis, Mo.: The curette is still popular with the general practitioner because it requires less technical skill for its use. The summarized experiences of many large clinics show that no one method of treatment is available for all cases, but that each has its special field of usefulness. An attempt to construct a simple table of operative procedure varies according to (1) the stage of pregnancy at which abortion occurs (first six weeks, second six weeks, third to fifth month); (2) the stage of the abortion (imminent, inevitable, incomplete); (3) the experience of the physician in charge (country practitioner, city practitioner, specialist); (4) surroundings (country residence, city residence, hospital).

DISCUSSION

Dr Joseph Taber Johnson, Washington, D. C.: This is an important subject, and as gynecologists as well as obstetricians we have much to do with the effects of badly managed cases of abortion. In Washington as in St. Louis, the dispensary and charity hospital class of patients, who come for diagnosis and treatment, state that they attribute their present ill-health to their last abortion, and by questioning these patients we find their case was badly managed, in the great majority of instances. It would be a good thing if this society could formulate some method of treatment for these cases. As to whether the curette or the finger should be used to scoop out of the uterus the remains of an abortion, I agree with Dr. Taussig that in the first six weeks, when the neck of the uterus is dilated only a little, it would be doing violence to the parts to attempt to dilate to such an extent as to permit the index finger to pass into the uterus and scoop out what remains there. On account of the great damage done by the curette, I should advocate, in the series of cases which he has detailed, after the sixth week, the seventh and eighth weeks, that the woman be anesthetized and the finger introduced into the uterus instead of the curette and the remnants of the after-birth or membrane removed. The finger is a much more intelligent instrument than the curette.

Dr. William H. Wathen, Louisville: I have no reliable statistics as to the relative number of surgical operations I do when the pathologic condition has been caused by abortion or gonorrhea, but it is so frequently caused by abortion requiring extirpation of the diseased adnexa, that certainly we should strive to prevent this occurrence. The placenta should always be removed immediately after the delivery of the child, because delay in this regard is dangerous, and we never know when danger is going to come. Not only do practitioners perforate the uterus with a curette, but they never know when they use the curette whether they have removed all the secundines or not. We should never under any circumstances, in my judgment, use the curette to remove retained secundines, but should rely on the educated finger.

Dr. Thomas J. Watkins, Chicago: I not only follow out the old treatment of the vaginal pack in cases in which the uterus can not be emptied without a great deal of traumatism, but pack the uterine cavity. This should be done in all cases in which the uterus can not be emptied without considerable traumatism, and especially when the cervix is not well dilated This treatment can be extended even to the cases of infection Sometimes a woman is sent to the hospital with a temperature of 104-5 F., suffering from criminal abortion—she being possibly two or three months pregnant—with undilated cervix, and we no longer think it necessary to empty the uterus at once, but it is much better for the patient to pack the uterine cavity as full as possible in the form of a vaginal pack. The next morning the temperature is generally normal. During the day the woman may expel the gauze from the uterus, and usually expels the fetus and membranes with it. We leave it in forty-eight hours, as a rule, at the end of which time it has either expelled itself or can be removed with very little traumatism or shock to the patient.

Dr. Malcolm MacLean, New York: I want to speak for myself, and possibly a few others, on one phase of this subject. Dr. Wathen has referred to practitioners who are not able to dilate the uterus and empty it by the finger. I am one of those. I can dilate the uterus, but can not empty the horns of the uterus and feel sure that I have removed all débris from this organ. I want to know how a man's finger has become so elongated and prehensile that he can reach the corners of the uterus and safely feel that he has removed all detritus. There are undoubtedly men, such as Dr. Wathen, who can do this. I can not. I believe the mistake is made frequently by good operators who think they have emptied the uterus by the finger, and Nature comes to their salvation and empties the uterus afterward of pieces of placental tissue which otherwise might give trouble.

Dr Eugene C. Gehrung, St. Louis: If we wait three or four hours after the expulsion of the ovum, we will have very great difficulty in inserting the finger, while if it is done immediately it can be effected with great ease. I agree with Dr. MacLean that the finger is too short to reach the fundus of the uterus in some cases, but when the finger is inserted well, if we take care to put the other hand on the fundus of the uterus and press the area over the finger, the little spaces can be cleaned out. That has been my practice and I have succeeded in removing any retained pieces of placenta.

Dr. Joseph E. Janvrin, New York: Like Dr. Watkins, I pass a small wad of gauze up into the cervix and tampon the vagina thoroughly to excite contractile pains.

Dr. F. Taussig: I presented this paper not as a subject for discussion by us as regards our own technic, but with regard to the technic that we would advise the general practitioner to use, and I think in that respect we must be very clear and definite in our instructions. The tampon, the curette, the finger, each should be used in certain instances, and we should impress on the general practitioner the exact indications for each of these methods.

Latero-Lateral Anastomoses of Ileum and Sigmoid Flexures for Chronic Mucous Colitis

Dr. George H. Noble, Atlanta, presented a preliminary report on 27 cases, in which he had resorted to these operations. Among other things, he said: Results show cures in the majority of cases, considerable improvement in others, and little improvement in a small percentage of them. Mucous discharges were cured in the first series of older cases, and decreased in those recently operated on. Colic and soreness of abdomen have been relieved, or cured in almost all cases. Headaches from intestinal toxemia have also been relieved and the general health of the patients improved to a greater or less extent. The operation does not cure constipation in all cases, but in face of this fact, patients with constipation report either cures or improvement in the mucous colitis. The author pointed out the principles involved, discussed the effect of sulpho ethers in the urine, and gave a short history of the surgical treatment of chronic colitis. In addition to operation, it is essential to correct complicating lesions which either lead to constipation or interfere with a free outdoor life. It is likewise essential to regulate the diet in order to secure good results in all cases.

DISCUSSION

Dr. Egbert H. Grandin, New York: A simpler method sometimes answers for the cure of mucous colitis than anastomosis of the ileum and sigmoid flexure, and that is the removal of the appendix. Since it has become my custom to take the appendix out, as a routine measure, whenever in the course of an abdominal section for other lesions the condition of the patient allows the extra few minutes, I have noticed frequently that mucous colitis has disappeared. I have done that empirically with the full consent of the patients, with a knowledge that the operation was empirical, and I have deliberately taken out the appendix for the cure of mucous colitis in one case, the patient having been an invalid from that trouble twelve years before I removed the appendix. The appendix was postcecal, and slightly adherent, but not an appendix requiring an operation for appendicitis.

Dr. Lewis S. McMurtry, Louisville: Since a large number of our men have been in the Philippines and contracted amebic dysentery, this subject has received more consideration and has developed the rather surprising fact that so far north as Cincinati amebic dysentery is indigenous. I have had the opportunity to give some attention to this subject, and have been surprised at the number of cases of amebic ulceration of the colon that have been discovered in people who have never been out of this country, nor even in any tropical climate. They have been treated for years in various ways, but they would not come under the class of cases discussed by Dr. Noble with a view to surgical treatment in the manner he has indicated. By position, inverting the patient, and using an instrument which will allow the colon to be examined and illuminated a good distance, the characteristic ulceration of this form of lesion of the intestine will be discovered, and it is almost incurable by enemata and by systemic treatment. It goes on for years with a diarrhea, with wasting of the patient, and there has been no operation that has been more useful in the treatment of this class of diseases than that of appendicostomy. In the hand of colleagues I have seen perhaps half a dozen patients who have been treated in this way in the last year. The scrapings from these ulcers, when examined, are found to be literally alive with amebas. I would suggest this as one of the possibilities in all the cases that have been described by the essayist, and I would further suggest that in these cases the parts should be illuminated carefully and examined before resorting to the operation that has been described.

Dr. Franklin H. Martin, Chicago: If the author had read all of his paper, undoubtedly there would be observed a similarity between the operation he has described and the one suggested by Arbuthnot Lane, namely, the removal of the colon for the treatment of constipation. This operation provides a remedy for that part of the colon which is dead, leaving a portion of the colon unused by the Arbuthnot Lane operation. I would be glad to hear what Dr. Noble has to say in reference to the Lane operation.

Dr. J. Riddle Goffe, New York: In regard to the presence of amebic dysentery below the Ohio River as having been discovered in the last few years, I have heard this explanation, that it has been brought back by our soldiers from the Philippines and may have become indigenous at the present time from that cause.

Dr. G. H. Noble: I avoided purposely saying anything about amebic dysentery and similar conditions because the treatment is so well known, and so many operations have been done for their relief. In reference to removal of the colon, such an operation would hardly be justifiable in mucous colitis. That operation belongs to another disease; it is too severe a remedy for the disease.

(To be continued)

AMERICAN SOCIETY FOR THE STUDY OF ALCOHOL AND OTHER DRUG NARCOTICS

Semi-annual Meeting, held in Washington, D. C., March 17-19, 1909

The object of this meeting was the presentation of some of the latest and most authentic conclusions based on laboratory and clinical experience concerning the alcoholic problem.

The treatment of inebriety was a subject of many papers, all urging that the disease side be recognized and that the patient be treated as a ward of the state, irresponsible and requiring exact care.

The unusual prominence given by the press in the daily reports shows that the subject has aroused intense interest in the public mind. It also indicates that public opinion is turning to the physician for facts and conclusions for scientific study above the present theories. The members of the society feel that the whole alcoholic problem is rapidly coming into prominence as a hygienic health subject in which physicians are the most competent, and that they will become the real teachers and students of the causes and its prevention.

Temperance Movement in the South

Dr. Henry O. Marcy, Boston: The rapid change of public sentiment favorable to more radical measures for the suppression and control of the sale of alcohol as a beverage is not mere sentiment or theory, but is due to the deep feeling of alarm and the recognition of the influence of alcohol in intensifying and increasing the social perils of home life and good government. Medical and hygienic study based on statistics, and mortality tables, indicate that alcohol as a beverage is a most active cause of degeneration and disease among the colored and illiterate classes of the South. The unrestrained use of alcohol is literally anarchy. The alcohol problem has a sanitary side of the most absorbing interest, which must be recognized as becoming a part of the practical life of every community. The unsettled condition of homes, race prejudices and conflicts incident to the evolution of a new South should have no complications from alcohol or other forces destructive to healthy growth. Industrial progress and development of the resources of the South will be obstructed and retarded unless the use of alcohol as a beverage can be controlled.

The Alcohol Problem in Every Day Life

Dr. Howard A. Kelly, Baltimore: This problem is becoming more apparent every day in degenerations and injuries directly traceable to the use of alcohol. Alcohol as a beverage and even as a medicine has an unknown danger that may come into prominence in a great variety of diseases and conditions. It is a dangerous and uncertain drug, and as a beverage should have no place in healthy normal living.

Future of the Alcoholic Problem

Dr. Thomas D. Crothers, Hartford, Conn.: At present there are positive indications of the early solution of the problem by the means and measures that can not be mistaken. *Experience and laboratory* research have shown alcohol to be a narcotic, and its effects on the system produce a distinct disease both curable and preventable. This question is one of public health and sanitary science. The saloon for the promotion of the sale of spirits is a center for the promulgation of the disease, and is doomed to extinction from a larger and more exact knowledge. Science shows that alcohol as an anesthetic has a value in medicine, but its *real power* is that of a fuel, light and force producer. Cheap alcohols can be made from a great variety of sources that will be active competitors to electricity, gasoline and steam. What is needed is the invention of boilers, lamps and means to utilize and make practical this great power of alcohol. Every distillery and brewery in the country will be required for the manufacture and distribution of cheap alcohols when the inventor supplies the missing links. Alcohol will become one of the great rivals of electricity to do the world's work, because it can be made from the waste and by-products in every section of the country. Beer, spirits and all other forms of alcohol as beverages will disappear when the inventor shows us how to harness and utilize this new latent power of civilization. The future of the alcoholic problem will be followed by a great revolution in commercial industry and will be a question of sanitary science and inventor's skill.

Alcoholic Neuropathic Entailments

Dr. Charles H. Hughes, St. Louis: Alcohol sears and taints race stock with as much certainty as syphilis or tuberculosis; and the damaged brain or depraved blood extends far in the future. Heredity is not a theory. It is a fact that 80 per cent. of the children of drinking parents show the degeneration that has been transmitted in different forms and conditions.

Need of Legislation for Inebriates

Dr. Lewis D. Mason, Brooklyn: The defective inebriate needs legal care and control. He is more dangerous than the insane, more degenerate in his influence than the criminal and pauper, and should be segregated in special hospitals and colony homes on military plans, the inmates to contribute to the support of this institution by manual labor and to be held responsible by reward and punishments.

Effect of Alcohol on the Body

Dr. Bittle C. Keister, Roanoke, Va., discussed the effects of alcohol from a scientific point of view, and stated that modern laboratory research and clinical experience denies the tonic and stimulant value of alcohol, and declares that its action is that of an anesthetic and narcotic. The use of alcohol as a beverage, therefore, is a relic of barbarous times.

Responsibility in Intoxication

Dr. Albert Gordon, Philadelphia: No one who uses spirits to excess should be considered sane and responsible. The degree of mental and moral paralysis in each case must be settled by a study of the facts. The attempt to draw dividing lines between sanity and insanity is unreal and unscientific. Intoxication is literally insanity and irresponsibility under any circumstances, and will be so regarded in the future.

Laboratory Research

Dr. Winfield S. Hall, Chicago, in his paper on laboratory researches *concerning* the action of alcohol on the cell and tissues, *concluded* as follows:

1. Alcohol is a waste product of tissue metabolism.
2. Alcohol produces a toxic effect on living substances.
3. Alcohol in common with other toxic substances is *oxidized* in the body.
4. This oxidization is a means of defense, as the products are far less injurious than the alcohol.
5. Because of this defensive *oxidization* of alcohol, which takes place largely in the liver, the ingestion of more than a small amount of that substance makes the body more liable to *other toxic* invasions.
6. Alcohol can not in the nature of the case be considered a food.
7. Alcohol decreases the efficiency of muscles, glands and *nervous* system.
8. Alcohol is a narcotic in its drug action.
9. Alcohol given in minute doses to lower animals *seriously* impairs fecundity and increases *degeneration* and *race suicide*.

Toxins as Active Causes of Inebriety

Dr. G. H. Benton, Chester, W. Va.: Modern research has *proved beyond doubt that* inebriety is the result of poisons introduced from without, and manufactured within the body. *Alcohol is a toxin that* is constantly changing and that not only absorbs the water of the body, but deranges the cell material and furnishes soil for the growth of poisonous bacteria. The inebriate is literally a laboratory where all sorts of germ poisons are continually growing, and the more spirits used, the greater the derangement and weakening of vital energies.

Laboratory Study of Inebriates

Dr. A. MacDonald, Washington, D. C.: Inebriety must be studied by scientific means and measures before remedies of value can be applied. Inebriety is curable and preventable but the remedies must not be theory or sentiment. First, find the exact nature of the disease, then the problem can be settled by *breaking up* the breeding-places.

Alcohol and Public Health

Dr. George W. Webster, Chicago: The alcohol problem is more important than tuberculosis because of its *far-reaching effects*. It costs the United States in direct money over two billion dollars. It causes directly and indirectly at least 10 per cent. of all deaths in the United States. It predisposes to infection, destroys acquired immunity, prevents the occurrence of artificial immunity, lowers vitality and increases mortality in all *diseases and in surgical operations*. It lessens the power of individuals to resist the injurious influences of extreme heat and cold. It causes deterioration of the quality of mental work. It diminishes the power to withstand fatigue and lessens the efficiency of the individual. It should always be *classified as a poison and never as a food or stimulant*. It is a public health and sanitary question, and not a moral one, but should be treated the same as fevers, smallpox and malaria and by scientific men alone. The alcoholic problem is a medical one, and can only be solved when studied from a scientific point of view.

Effect of Alcohol on the Stomach

Dr. D. H. Kress, Washington, D. C.: Functional and organic disturbances of the stomach are both a cause and effect of the use of alcohol. All forms of alcohol are dangerous *remedies* for stomach disorders, as while it quiets pain and *discomfort for a time, it creates new sources of discomfort and derangement. Alcohol acts on the appetite and digestion*, diminishing *the nutrition of the body. All forms of spirits* at meals *are injurious*, and the use of remedies containing alcohol for stomach diseases is contradicted by scientific research and shown to be most dangerous.

Danger from Mixed Drinks

Dr. Harvey W. Wiley, Washington, D. C., discussed the danger from mixed drinks, particularly absinthe, which he declared the most dangerous drink in existence, and urged that legislation should be enacted prohibiting its use in the United States. He called attention to the many tonics *on the market* whose only value comes from the *narcotic action* of the contained alcohol or narcotic. An exhibit was made of more than fifty samples of *proprietary* drugs and drug cures, some of the latter containing as much as 20 grains of morphin to the ounce.

MISSISSIPPI STATE MEDICAL SOCIETY

Forty-second Annual Meeting, held at Jackson, April 13, 1909

The President, Dr. James W. Gray, in the Chair

Election of Officers

The following officers were elected: President, Dr. D. W. Jones, Brookhaven; vice-presidents, Drs. J. S. Saunders, Pascagoula; J. C. Armstrong, Water Valley, and *Thomas* Purser, McComb City; secretary, *Dr. E. F. Howard*, Vicksburg (re-elected); treasurer, *Dr. H. L.* Sutherland, Rosedale (re-elected).

President's Address

Dr. James W. Gray, Clarksdale: The State Board of Health has done very valuable work during the past year. The very high standard of qualifications required of licentiates to practice medicine promises much good to the people, and to the profession. The public interest being aroused through the efforts of the board in matters of hygiene and public sanitation is remarkable, more especially when we remember the inadequate appropriation at the disposal of the board. Since "*mens sana, in sano corpore*" in the individual is the most valuable asset of the state, an appropriation of fifty times the present amount would seem much the wiser policy.

The medical profession is regarded as the final authority in matters of hygiene and sanitation, and it is proper that it should have a larger influence in the making of the laws governing these problems. The committee on public policy and legislation has received scant courtesy at the hands of the law makers, and I believe that this is due to the fact that we have begun our agitation for reforms too late. Any candidate for election is more amenable to reason and proper argument before election than after he is safely seated, and I recommend that the Committee on Public Policy and Legislation be appointed for a period of five years, the terms of no two members to end the same year, and that an auxiliary committee be formed consisting of one member from each county in the state. The duties of the regular committees shall be the same as now, and after the policy and legislation desired shall have been decided on and outlined, the conclusions shall be communicated to each county member, and by him presented to the various candidates for senate and house, and pledges of support secured. The united strength of organized medicine in the state is a force which, if properly used, at the psychologic time, will cause a would-be solon to awaken to reason. The determined, insistent purpose and action of our profession can put any just law we want on the statute books. Since the vigorous discharge of the duties of the chairman of the committee under this program would entail much labor and expense, I recommend that a liberal appropriation for clerical expenses be made, especially during the year of a general election. The increasing number of blackmailing malpractice suits against physicians suggests the necessity of this association adopting some plan of cooperative medical defense. The prevailing impression has been that malpractice suits are more numerous in the larger cities, and that Mississippi, having few large cities, the physicians of the state do not need such means of protection. The experience of other states shows conclusively that this is not true, but, on the contrary, such suits are much more frequent in the rural districts.

As some evidence of our appreciation of the heroism of Major James Carroll, I earnestly recommend that the association appropriate not less than one hundred dollars for his widow.

Our constitution recites that the president shall be the real head of the profession of the state during his term of office, and, as such, I consider it my duty, as it will be my pleasure, to tell you a few plain truths about yourselves. As individual physicians, in your relations to your patients, no nobler, kinder nor more charitable men ornament the earth. But, as an organization, and in the discharge of your civic duties, you have been stung by the tsetse fly, and a curative serum must soon be found, or you will sleep your life away. The purposes of this organization, among others, are to aid in the "enactment and enforcement of just medical laws" and in the enlightenment and direction of public opinion in regard to the great problems of state medicine, so that the profession shall become more honorable and capable within itself, and more useful to the public in the prevention and cure of disease. And how are we discharging these sacred duties? By meeting in annual session, giving birth to most commendable and altruistic resolutions and memorializing the legislature! In the limbo of unaccomplished things are many measures of great importance to the state, and to the profession, that were pressed forward with fine enthusiasm; that were discussed and earnestly recommended by the association, and then we memorialized the legislature—and went to sleep. Periodic paroxysms of perfervid oratory, and spasmodic attacks of strenuous travail have never yet accomplished useful results. We may memorialize the legislature until the end of time, and, unless we put some force behind the memorial, we shall continue to be treated with the paltry consideration we have always received.

(*To be continued*)

PHILADELPHIA COUNTY MEDICAL SOCIETY

Regular Meeting, held April 14, 1909

The President, Dr. Frederick P. Henry, in the Chair

SYMPOSIUM ON THE PHYSICIAN'S ETHICS AND INCOME

Why Medical Undergraduates Need Training in Business

Dr. I. Newton Snively: It is becoming increasingly difficult for the general practitioner to make a living. Physicians have ever posed as poor bookkeepers and worse business men. In any other field, similar lack of business sense would promptly lead to bankruptcy. Adequate business training is needed in the practice of medicine because of (1) the increased demands on would-be medical graduates; (2) the growing competition and constant evolution in medical practice. A medical diploma entails a monetary outlay of at least $2,000, and beyond this a year or more of hospital experience is greatly encouraged. This makes it practically impossible for a man to enter on paying practice before the age of 25. Once in actual work, the practitioner of medicine, more than any other wageearner, is up against hard factors that make for low pay, slow pay and no pay. The professional, sociologic and legal demands on the profession are constantly increasing without a jot of regard for the material welfare of its members. Public opinion has decreed everywhere that it is a physician's duty to save life, to cure and to prevent disease; it is nowhere decreed that he must save his own life, that he must look out for the material welfare of his family. Tacitly, the profession is pledged to every demand of preventive medicine But here no fee schedule applies, while every success that is scored only reduces the paying end of practice.

Ethical and Business Training of the Prospective Physician at the Medico-Chirurgical College

Dr. James M. Anders: On the request of the Board of Trustees and Faculty of the Medico-Chirurgical College, I deliver annually one lecture on medical ethics and another on medical economics to the senior class. Concerning the business side of the physician's life the most important period is the first decade after graduation. The recent graduate must maintain his interests in technical laboratory work, in clinical medicine, in special pathology and physiology. The public will demand physicians whose abilities have been tested by the laboratory and hospital wards and whose record is clean and good. The vital question of providing for a rainy day must be met and solved by every physician. Perhaps the best investment for a young man in medicine is a small life insurance policy in a reliable company. I should advise against the purchase of property until a reasonably accurate estimate can be made of its value ten years hence. The stock market and mining interests are to be severely let alone. The best investment for the physician's savings is in first-class guaranteed bonds bearing a moderate rate of interest. In settling in a given locality I should recommend that the physician ascertain the rate of remuneration of the physicians in the neighborhood and not expose himself to the charge of bidding for patients by making lower charges than his fellow-practitioners. The advantages of a properly organized profession are multiple, and especially can it be made to operate in bringing about better fees, better protection in case of unjust suits for malpractice and assaults on individual members, as well as a greater force, respectability and dignity as a body. From an ethical standpoint it is the duty of every physician to bring the local profession, wherever he may settle, into good repute, by attempting to overlook the imperfections so patent in others, and by reposing with confidence in the fair-mindedness and liberality of his competitiors. The request for a consultant on the part of the patient's family should be cheerfully complied with, though there may be no apparent necessity, provided of course, that the consultant desired be a regular physician. No one can afford to decline to consult with a regular practitioner of the female sex and the same is true of the graduate in homeopathy who does not practice sectarian medicine. The post of a consulting physician is one of momentous importance and grave responsibility. The rights, privileges and interests of the attending physician must be jealously guarded and never must advantage be taken of any circumstances incident to the consultation. In any critical emergency, a physician should not hesitate to visit the patient of another physician, but must voluntarily withdraw from the case as soon as the services of the attending physician can be procured, unless the latter should insist on his remaining connected with the case. When great probability of an early demise arises, it is the physician's duty to give timely warning either to the patient himself or those most directly concerned. The ministrations of the clergy are a solace and a comfort to the desperately ill and dying.

The Possibilities of a Mutual Business Bureau

Dr. A. B. Hirsh: The lack of systematic financial training of the undergraduate, the ever-increasing socialization of medicine, contract practice, growth of plainly commercial new cults, so called, are largely responsible for the physician's lessened opportunity. It is only through united efforts by our rank and file that protection against the dishonest patient will be secured. It is along the line of credit and collection offices that Philadelphia physicians must find relief. Chicago physicians have obtained marked benefits from their year-old "business bureau." From supposedly uncollectable accounts over $22,000 have been received. Within the past year there have been formed in various parts of Philadelphia business leagues. Others will be established and later there will follow their union into a central business bureau for collection of accounts and for information as to undesirable patients, when there will be in existence a credit guide covering the entire city. The details are as follows: Each member of a medical district league, on payment of the one-dollar annual due, receives sufficient blank catalogue cards for his questionable pay patients. By the use of an easily understood cipher code, each card serves for the history, etc., of one family, or of one patient. When filled out by the physician these are returned to the secretary for filing in his indexed desk drawers and kept under lock and key. The physician's number, but not his name, is on each card, this number agreeing with that on a book list of physician-member addresses in the secretary's safe. Information wanted by a physician about a new patient is obtained by telephone from the secretary's office, the doctor's number only being used in such a conversation. Confidences are thus always assured. The secretary's recompense is 5 cents per message. The plan warrants up-to-date information, while printed lists are found obsolete because of frequent removals of delinquents. By multiples of each card of details an exchange system between the leagues is possible. My plea is for early organization of a business league in each part of the city so that the central business bureau can be realized at the earliest possible date.

Discussion on Business Methods

Dr. A. M Eaton: These business leagues are not for the purpose of collecting bills, but to prevent a class of undesirables from robbing physicians, and we think that we shall be able to accomplish that purpose. A case in point is that of a young physician who was asked to withhold his bill for over $120 for a year, when the people promised to pay in full. At the end of the year, they paid $10. Fearing to lose all the money he continued his attendance for three years and then stopped. They then owed him nearly $400, for which, after some years, he sued. He settled the claim for $100 and paid the lawyer $50.

Dr. Aaron Bray: I do not think it good teaching to say that the young practitioner should ascertain the average charge of physicians in his locality and then make his own to correspond. If the young man, surrounded by hospitals and dispensaries, insists on the same fees as those received by the man in practice for twenty years, he, of course, will not succeed. I do not feel that contract practice should be condemned utterly. Under some conditions I can see that a man could so practice without doing harm to his fellow-practitioners and that he might save many families from attendance on the hospitals and dispensaries, the abuse of which is responsible for all the ills. Medical ethics should be taught, but they ought to be on a sound basis and with some degree of fairness as to what constitutes ethics.

Dr. Samuel P. Gerhard: I do not like the word "business." Some other word ought to be used. It seems to me that in the college the student ought to be taught first that the practice of medicine is not solely humanitarian, as so many people claim. Students should be taught that they are entering the practice of medicine to relieve suffering and to treat disease, and they should expect to be paid for it.

Dr. Albert E. Roussel: I am inclined to think that a very common fault exists among ouselves. In the early years of my practice I remember a physician who had an exceedingly large practice, actually working day and night, and who was known as a man who never sent out a bill. He did not collect 25 per cent. on his work and literally worked himself to death. Many people think that a medical practitioner should not sue for his bills. I have collected over 80 per cent. on the work I have done by frankly going after my patients. I should think the idea of establishing a bureau as suggested by Dr. Hirsh would be a very good one.

Dr. John A. McGlinn: When we remember that there is one physician to every five hundred people we recognize that the profesion is overcrowded and that the first thing to do is to raise the standard of medical education. We must recognize also that a man graduates in medicine at a time when other men of his age are making money and at twenty-six he is up against a proposition, with competition so keen that he can hardly be blamed if he accepts contract practice, a low rate for insurance examinations or lowers his fees. The public also should be taken into the confidence of physicians and the mysticism of medicine done away with.

Dr. Seneca Egbert: I feel that the standard of medicine is being raised and that the number of physicians in the future will be less than in the past. The idea of establishing a central body like the Chicago bureau is most admirable. We have done our share in pauperizing people. I agree with Dr. McGlinn that we do not sufficiently educate the public in regard to medical matters.

Dr. Hirsh: The size of fees and contract practice will have to be viewed from more than one standpoint. We must remember that the various classes of population, gradations of wealth, native and foreign-born inhabitants are factors in this question. I believe the free choice of the physician will be the solution of the contract practice problem. Great advantages are to be secured by an early organization of the business leagues as described to be located throughout the city with the ultimate establishment of a central business bureau.

Sodium Benzoate as a Food Preservative

The following resolution was adopted by the society:

Whereas, there has passed the legislature and is now before Governor Stuart, a bill which would legalize the use of sodium benzoate as a food preservative in the quantity of one-tenth of one per cent.; and

Whereas, the vicious features of this bill in its original form, such as the main label clause and the notification clause, were sufficient to indicate plainly that it was not drafted in the interests of the public, but rather that of powerful special interests; and

Whereas, it is declared by manufacturers of the very class of products which it is desired to preserve with sodium benzoate that its use is unnecessary, provided good sound materials and proper sterilization methods are employed,

Therefore, the Philadelphia County Medical Society places itself on record as believing that the bill as it has passed the legislature would be against sound public policy, inasmuch as it would permit the incorporation into food of a drug which would benefit the manufacturers of food products at the expense of the consumor.

Resolved: That this body urges on Governor Stuart the propriety of vetoing this bill, so that the progress which has been made in the regulation of pure foods may not be reversed and the door opened to the chemical preservation of many products which now enter into the daily food supply of the people of Pennsylvania.

MISSOURI VALLEY MEDICAL SOCIETY

Semiannual Meeting, held at St. Joseph, Mo., March 18-19, 1909

Public Health Problems of the Nation

SURGEON-GENERAL WYMAN, U. S. Public Health and Marine-Hospital Service: Two kinds of problems must be considered: sanitary and legal. Of the two, the legal are the least settled. Scientific knowledge of disease and methods of prevention are far in advance of legal provision and executive administration. A comparatively short time ago smallpox, cholera, typhus, yellow fever, plague and leprosy were problems of a scientific as well as legal character. For centuries these diseases baffled the wisdom of man, inspired terror and gave rise to investigations, theories and procedures which were of no avail. The quarantine of to-day is not deserving of the same name as the first quarantine which was imposed at Venice in 1403 against plague. Then vessels were simply held at a short distance from shore, and the disease was allowed to run itself out. To-day quarantine is simply the isolation of the sick and the detention under observation of exposed individuals during the period of incubation of the disease in question. Another problem practically solved or being solved is that of immigration. Until the passage of the immigration law of 1891 there was no hindrance to the influx of immigrants afflicted with diseases other than those which were quarantinable. Our cities and towns were receiving immigrants afflicted with loathsome diseases, particularly favus and trachoma, but this invasion has practically stopped and other diseases of like nature are regularly excluded. In regard to international hygiene and sanitation the various international sanitary bodies may be expected to have an aggressive effect on sanitary reforms. The manner of making international sanitary agreements and organizations having a practical bearing is one of the greatest of modern problems. In the American republics the matter has gone so far as to be included in resolutions adopted at the third International Sanitary Conference of American States held in Rio de Janeiro in July, 1906, namely: "The adoption of measures tending to obtain the sanitation of the cities, and especially of the ports, and to attain as far as possible to better knowledge of the greater observance of hygienic and sanitary principles." The National Government, aside from quarantine regulations, regulations regarding the manufacture and sale of the various vaccines, antitoxins, etc., and those relating to pure food, is engaged chiefly in investigations and the dissemination of information, and in bringing about cooperation between its own organizations and those of the various states.

Oration in Medicine: Diagnosis of Kidney Disease

DR. N. S. DAVIS, Chicago: The limitations for the diagnosis of renal disease was emphasized by Cabot two years ago, when he reported the results of his attempt to ascertain what urinary findings were actually related to definite pathologic lesions by comparing the histories and especially the urinalyses in a large number of cases. The presence of albumin and casts in urine indicates disturbance of function or change in structure, but nephritis may exist without the presence of either albumin or casts. Large numbers of red corpuscles in the urine indicate an actively developing lesion—either acute, or an exacerbation of a chronic one. A large amount of sediment, composed chiefly of casts or epithelial cells; or both, indicates extensive involvement of the renal tubules; but few casts and no epithelial cells do not mean that the tubules are not involved. In the differential diagnosis of the various diseases of the kidneys it is necessary to give as much weight to other symptoms, to the etiology, and to the course of the disease as to the urinary findings. Acute nephritis may be caused by the exanthema, pregnancy, septicemia, typhoid, diphtheria, tonsillitis, pneumonia or rheumatism. Varicella, vaccinia, syphilis and tuberculosis are rarely causes. Intestinal toxins and some drugs may also be causes of acute nephritis. Chronic indurative nephritis is caused by an acute attack or by a chronic constitutional disease which leads to anemia or cachexia. Exposure to cold is intentionally omitted from this recapitulation of causes because it should be considered simply as a predisposing factor, not as a direct cause. In determining the gravity of kidney diseases, it is not enough to know that the kidneys are involved or even to know their exact pathologic condition—it is extremely important to ascertain whether or not they are functionally active and competent. In testing the function of the kidneys it is just as necessary to give a test meal as in examination of the function of the stomach. Milk is the most practical substance to give, as its constituents are fairly well known.

Oration in Surgery: Cancer of the Uterus

DR. H. J. BOLDT, New York: As a reason for belief in the possible correctness of the hemic theory of the origin of cancer, is the fact that some pathologic processes causing decided alteration in the blood set free strong antagonistic factors to cancer. The malignant neoplasms of the uterus resemble each other so closely that it is almost impossible to differentiate them. In practically every case of uterine cancer there is a history of previous endometritis. Jewish women do not seem to be so susceptible to cancer as Gentile women. If pain were an early symptom instead of the latest, the diagnosis would be made much earlier, and many lives would be lengthened. The bladder and kidney complications are the most important. Rectal symptoms do not develop till late in the disease. In treatment, total extirpation is the most important thing. Prolonged anesthesia should be avoided as much as possible, and for this reason the patient should be thoroughly prepared for the surgeon before being anesthetized. In cancer of the vaginal part of the cervix and body, it is not necessary to do such extensive operation as in cancer starting from the cervical canal. The abdominal route for extirpation should be limited to cancer of the cervix, and to cases in which the uterus is too large for vaginal extirpation or in which there is adnexal disease. A larger number of patients may be operated on by the abdominal than by the vaginal route. I have had no experience with vaginal hysterectomy with a galvanocautery, and have never favored the high amputation of the cervix or of its vaginal part; I believe that this operation will soon be relegated to oblivion. When diabetes complicates malignant disease, in cases seen early enough to give hope of cure, operation should be done, but without general anesthesia, and should be rapidly performed.

How the Physician Can Best Serve the Community in which He Lives

DR. E. H. MILLER, Liberty, Mo.: Some physicians have opportunities only to relieve suffering, and are thereby deprived of the real beauty of their profession. This is particularly the case with the specialists and the city physicians. The country practitioner, however, is an important part of the community in his professional capacity. He is no longer called on merely to treat suffering individuals, but must aid in the great movement for prevention of disease and injury, and for the uplifting of the general condition of the community. The public can not be expected to swallow anything the physician tells it about a public necessity, unless something tangible is brought forward for it to grasp. Therefore, education of the public is the most essential necessity in all public health work and the country practitioner can do this better than others because he is brought into contact with people of all classes, under circumstances that render them especially susceptible to his influence. There are many ways in which the physician can assist in the prophylaxis of disease. For instance, he may cause the health officer to inspect the milk supply at proper intervals, and particularly he should visit the public schools, not only in time of epidemics, but at other times, to notice whether the light, air, water, etc., are properly supplied, without waiting for the death of one of his patron's children to stir him to action.

The Management of Enlarged Spleen

DR. T. E. POTTER, St. Joseph, Mo.: In the hands of competent operators the death rate in splenectomy is from 10 to 20 per cent. Anything that will remove this high percentage of failures should be gladly received. In 1878 I began the hypodermic use of ergot in enlarged spleen, as advised by Da Costa, and with happy results. To accomplish results with this treatment requires time and patience. The *x*-ray may be as good or better than ergot, but I have had no experience with it.

Anesthesia in Children

Dr. William W. Stevens, St. Louis: When operation for adenoids or large tonsils is to be done the child should be examined by a pediatrist for enlarged thymus and the status lymphaticus, the presence or absence of lymphotoxemia being noted. If present, operation should be deferred if possible. Nitrous oxid is not a good anesthetic for very young children. The statement that chloroform is harmless in children is altogether erroneous. Chloroform is the most poisonous of all anesthetics in the status lymphaticus. The picture presented by a child during chloroform anesthesia is one of profound depression. The margin between an overdose and "just enough" is infinitely smaller in children than in the adult. False anesthesia is present more often in children than in adults, and is most often seen when chloroform is used. The charge that ether is more dangerous to the kidneys is not proved. For children, ether on an open mask by the drop method is the best and safest routine anesthetic; the closed method is not suitable for young children. The delivery to the child of an ether vapor which has been warmed after the air or oxygen has been laden with ether is without doubt the most ideal method yet suggested.

Osteomyelitis

Dr. F. H. Clark, El Reno, Okla.: Whenever it is possible to do so, the microscope should be used to determine the germ causing the disease. Palliative treatment should always be instituted and persisted in until improvement ceases or there is danger of the disease becoming general instead of local. If the case is seen in the acute stage, cutting down and draining by trephining into the bone gives great relief. During the subacute or chronic stage all necrotic bone including the sequestra, should be removed. In the tuberculous form, iodoform seems to be especially helpful, used in some one of the numerous ways suggested; also tuberculin promises us some assistance in this condition if carefully used. In the young, prognosis as to recovery and function may generally be very favorable, while in those older it should be more guarded.

The Mastoid Operation

Dr. Cornelius Williams, St. Paul, Minn.: I wish to go on record as favoring early operation. Formerly, mastoid wounds were packed in various ways and for the incomplete operation that must yet be done. Packing adds to shock, prolongs the period of healing, renders first dressing painful and infection more likely; also, the scar in packed wounds is prominent. After removing all diseased bone and opening all cells the antrum should be well cleaned, all pus and blood being removed from the auditory canal, and incision made through the *membrana tympani*, if necessary, and the middle ear aspirated several times with a rubber bulb. A gauze wick, wet with normal saline solution is then introduced near the bottom of the canal, the gauze mask removed from the side of the head, the skin wiped dry, brushed again with the iodin solution, and the incision closed by subcutaneous catgut suture to the mastoid tip, the wound covered with a yoke-shaped pad of gauze, well padded with cotton, and the head bandaged. Unless skin infection occurs, the wound should heal by first intention, except at the lower angle, where there will be oozing of bloody serum, as well as from the middle ear. This oozing hastens cure by its action on the micro-organisms.

Other Papers Read

Among the other papers read were: "The Use of Carbon Dioxid Snow in Dermatology," by Dr. R. L. Sutton, Kansas City, Mo.; "A Study in Reflexes," by Dr. L. Crafts, Minneapolis; "Diphtheritic Paralysis," by Dr. F. E. Coulter, Omaha, Neb.; "Autointoxication," by Dr. A. E. King, Blockton, Iowa; "Possible Means for a Better Comprehension of Immunity," by Dr.

THE AMERICAN SOCIETY OF TROPICAL MEDICINE

Sixth Annual Meeting, held at the United States Naval Medical School, at Washington, D. C., April 10, 1909

(Continued from page 1449)

Schistosomiasis (Japonicum), with Special Reference to Observations in Hunan Province, China

Dr. O. T. Logan, Chingteh, China: The existence of this disease seems to be connected with wet farming. Diagnosis is usually easy, though it may be necessary to make examinations on several days before the characteristic ova are found in the stools. It is believed that the infection takes place through the skin in persons who wade in stagnant water. The prognosis is bad in heavy infections; and even light infections lower the vital resistance, and render the patient more liable to concurrent infections.

Prevalence and Importance of Uncinariasis Among Apparently Healthy Southern-Bred White Men in the U. S. Army

Major Weston P. Chamberlain, Louisiana: Uncinariasis is common among soldiers of less than three years' service. Of one hundred serving in their first enlistment, sixty were infected. It is believed that uncinariasis in childhood is the cause of the poor development so common among southern-bred recruits. Those who lead a farm life are frequently infected with hookworms, as most persons on farms habitually go barefooted in childhood; more than half of these have, probably, suffered from ground-itch during their youth.

Mild Uncinaria Infections

Dr. Charles C. Bass, New Orleans, called attention to the fact that the negro presents few symptoms, even when laboring among parasites. He then described in detail the method of obtaining the ova by the means of the centrifuge.

Discussion on Parasites

Dr. W. S. Thayer, Baltimore: It would be of great interest to study the stools of *Strongylus stercoralis* by the method described by Dr. Bass, in order to determine the relative measurements of these eggs and those of uncinaria. The eggs of the former are rarely found in the stools; and when they are found, are so like uncinaria that there is sometimes a question as to which they are.

Dr. J. M. Swan, Philadelphia: A patient recently came under my observation who at periods of four weeks had had epileptiform attacks of considerable severity. On examination of the blood, an eosinophilia of 15 per cent. was found. A rather large flagellate infection was discovered by examining the stools. After appropriate treatment for two months, there was no return of the convulsions. In spite of repeated examinations of the stools, I failed to discover any uncinaria eggs.

Dr. Joseph Siler, Port Jay, N. Y.: The question of prophylaxis of uncinariasis ought to have more attention, as the South will never get rid of the hookworm unless the subject is taken up by the government. The fact that nearly all the children of the South are infected makes me believe that if that section could get rid of the hookworm much would have been done for humanity.

Major Chamberlain: My cases were widely distributed, every state in the South being represented, even as far north as Maryland.

Dr. C. C. Bass: Ridding the South of this infection is of great importance. I think, however, that the question must be one of education, rather than of legislation, as it would be impossible to force the layman by law to observe such sanitary measures as would be necessary to prevent this disease.

The Relation of House Flies to the Spread of Disease

Dr. Henry Skinner, Philadelphia: This insect oviposits in horse manure, decayed vegetable matter, decayed meat, cow dung, fowl droppings and human excrement; but the vast majority of house flies are bred in horse manure. The house fly as a carrier of typhoid infection is very dangerous Whenever flies can gain access to material containing the *Bacillus typhosus*, they are almost certain to carry it to food. They have long been suspected of being agents in the dissemination of cholera and other intestinal diseases. So far as is known, however, the house fly is only the mechanical conveyer of bacteria, and is not the host of any known animal disease-producing organism similar to the protozoan organism that causes malaria. If the insect can be prevented from depositing its eggs in horse manure, the fly as a pest will soon be a thing of the past The manure should be packed into barrels that can be tightly covered.

DISCUSSION

Dr P. M. Ashburn, U. S Army: Some time ago I prepared some slides covered with serum, when I discovered a fly busy eating some of this serum. I caught the fly and found in its proboscis two larval nematodes that were indistinguishable from strongyloides I thought that in this way the fly might be a carrier of intestinal parasites—possibly of uncinaria. In the Philippines flies are much less common than in the United States in the summer time.

Dr Logan: In China the blue-bottle fly is more common than the house fly.

Dr George Dock, New Orleans· The only way to get rid of house flies is to observe absolute cleanliness. If a soup plate containing sugar water and a 10 per cent. formalin solution is placed in the room, it will be found effective in keeping the flies down. The odor can not be perceived, but the flies are absolutely destroyed.

Mr H. L Viereck, Washington, D C.: At the laboratory in Harrisburg, Pa, while specimens were being immersed in 4 per cent. formaldehyd solution, it was found that the flies were attracted by the formaldehyd solution, which they sucked up, and that they died in great numbers.

Dr H Skinner: There are numerous records of places in the tropics in which house flies are very abundant. Further information would be very valuable, as the pest is one distributed pretty well all over the world, and is especially prevalent in southern Europe.

The Etiology of Pellagra

Dr C. H. Lavinder, U. S Public Health and Marine-Hospital Service: After an exhaustive review of the subject, I have reached the following conclusions: The cause of pellagra is essentially unknown. The idea, in one form or another, that there is an etiologic relation between pellagra and the use of maize as a food is not likely to be abandoned, as it rests on the observations and experimental work of many able men Sambon's suggestion of the possible sporozoal nature of the disease rests largely on an argument from analogy and is, at present, little more than a suggestion. It offers new and possibly profitable fields of investigation.

Relation of the Production and Utilization of Maize to Pellagra

Dr Carl L. Alsberg of the Bureau of Plant Pathology: The greater prevalence of pellagra in the United States than formerly may be attributed to (1) differences in the variety of corn grown; (2) changes in the climate; (3) the spreading of the corn belt northward; (4) the manner of transporting corn, and (5) changes in the methods of milling. In the south the germ of the corn is left in when it is milled; for this reason, the meal milled in the south contains a much higher percentage of toxins. I suggest that the standardization of grain be carried out by the Federal Government, which should enforce the proper drying of corn.

Discussion on Pellagra

Dr George Dock, New Orleans: From Dr Alsberg's remarks, one might get the idea that pellagra had developed in this country simply through the change of conditions for the raising and selling of corn; but I am certain that I had heard of cases before the existence of these changed conditions. I think that the main point is that the disease exists now, in a form difficult to recognize, and very often mistaken, as the clinical recognition of the disease is difficult in the less marked cases.

Dr J. M. Anders read a note from Dr. Theodore C. Merrill, enclosing a report on "Pellagra in the State of Texas." The note was, in part, as follows: Some time ago I reported a case, which I took to be pellagra. I was duly cautious, and examined thoroughly the suspected corn meal. But with this exception (which is doubtful), it is gratifying to be able to report general absence of this disease for the state.

Dr. Anders then called attention to the fact that of 196 cases of pellagra collected by Dr. Wood, 70 occurred in North Carolina. He said that the acute form of pellagra proved fatal in from four or five weeks to three months, this form being unknown in Italy. The average duration of cases here, in the chronic form, was only three years; whereas in Europe it was at least five years.

Dr. Edward Stitt, Washington, D. C: In not a single case of pellagra that was shown me in Egypt, could I see any typical symptoms.

Dr. William Thayer, Baltimore: In a case that I saw in 1905, the patient had had two previous attacks, associated with diarrhea, an eruption on the back of the wrists and marked stomatitis. This condition lasted about a month and then cleared up Intensive arsenical treatment had produced some very good results in trypanosomiasis. Therefore, it was tried in cases of pellagra on two successive days. In many cases there was a prompt recovery, and it was unnecessary to give the treatment a week later I consider this result so remarkable that I can not help feeling skeptical regarding it.

Dr. T. B Futcher, Baltimore: Is it known how long a person must be subjected to the infection in order to develop the disease?

Dr. C L Alsberg: I do not think that there were any exact data regarding exposure to infection. I think that a good many cases are overlooked in this country, especially in colored people

Dr. C. H. Lavinder: Not enough reports have been received from men who have seen the disease clinically to enable one to draw conclusions. While the Italians do have an acute pellagra, what they mean by this term is an acute exacerbation of a chronic case.

The Method of Teaching Tropical Medicine

Dr Edward R Stitt, Washington, D. C: I refer here entirely to the teaching conducted in schools outside of the tropics, in which no tropical material is available. Instead of showing a tropical climate case and giving the differential diagnosis from a temperate zone disease, one should exhibit a case with a disease common here and differentiate it from one common in the tropics. More attention should also be given to epidemiology, and to relate an amusing anecdote in connection with the description of a disease will often impress students as nothing else will.

Ipecac Treatment of Amebic Dysentery

Dr. George Dock, New Orleans: I urge the more frequent use of ipecac, the neglect of this drug being in direct opposition to the strong recommendations made by experienced physicians in India, the United States and Manila. Vomiting is hardly ever produced, even with doses of 60 or 80 grains a day The clinical result is most striking; the amebas disappear quickly, as a rule Subjective discomfort is often surprisingly slight.

DISCUSSION

Dr Stitt, Washington, D. C.· In the Philippines excellent results are obtained by the use of ipecac I had an amebic affection for two or three years, and the only thing that did me any good was ipecac. After using it for three or four days, I would lose my appetite, and be forced to discontinue the drug.

Dr. J. M. Anders, Philadelphia· Has Dr. Dock encountered any patients who were cured? I have found the cure *only* temporary.

Dr. P. M. Ashburn, U. S. Army: I have seen only two patients who did not promptly recover under ipecac treatment if they could retain the drug. If I can not cure the disease within a month I feel doubtful of ever curing it.

Dr. G. Dock: I have been unable to follow all of my cases up. I consider ipecac more effective than any other drug in acute cases and have had better results from it in cases of long standing.

Other Papers Read

The following papers were also read: "A New Method for the Preparation of Flat-Worms for Study," by Dr. A. J. Mink, Washington, D. C.; "Report of a Case of Dermatobia Noxialis Infection Contracted in Southern Mexico," by J. D. Manget, Atlanta, Ga.; "Blood Pressure in Yellow Fever," by Dr. J. B. Guthrie, New Orleans.

Medicolegal

Life Tables and Expert Testimony

The Supreme Court of Iowa says, in the case of Peterson vs. Brackey, that life tables offered in evidence were objected to on the ground that it affirmatively appeared that in view of the habits of the decedent such tables did not tend to show what his expectancy of life would have been. But such tables may go to the jury for what they are worth, although they relate to the expectancy of a person in good health, and without impairment by bad habits. They are not conclusive, but may be considered by the jury in connection with evidence as to the physical condition, vocation, and habits of the person whose probable length of life is to be estimated by the jury.

The jury was instructed in this case that if the evidence introduced on the trial showed the acts, conduct, demeanor, and conditions of the decedent to have been substantially as stated in certain hypothetical questions, then the testimony of the medical witnesses, based on such questions, might be given such weight and value as the jury believed them fairly entitled to. If, however, the evidence did not substantially sustain the supposed state of facts presented in the hypothetical questions asked such witnesses, or if the testimony of such witnesses was in conflict with physical facts, then the jury should attach no weight whatever to the answers of medical witnesses founded thereon. While it was left to the jury in this instruction to determine whether the facts assumed in the hypothetical questions had been found to be "substantially as stated in such hypothetical questions," yet the jury were told that if not found to be substantially as stated, the answers of the medical witnesses to such questions were to be given no weight whatever. This the court thinks to be in accordance with the rule announced in its prior decisions, in other cases, where it was held erroneous to leave it to the jury to say whether the facts stated in the hypothetical questions were unsupported by the evidence in material respects or how much weight should be given to the answers if there was a discrepancy between the facts assumed in the questions and those shown by the evidence.

In one of those cases an instruction was criticized which left it to the jury to say whether the statements of fact assumed in the hypothetical questions were substantially correct, but it was not intimated that the case would have been reversed on this ground. It certainly is not necessary that the facts assumed in a hypothetical question shall be proven in every material detail to the dotting of an "i" and the crossing of a "t," and, while the court might properly have omitted the word "substantially," it is not believed that the jurors were misled by its use. It was not left to them to say which of the facts recited were material, but only to say whether the facts recited were substantially proven; that is, whether each of them was in substance found supported by a preponderance of the testimony.

Skill and Care Required of Specialists

The Supreme Court of Vermont says that the plaintiff in the case of Rann vs. Twitchell, a robust boy of 13 years, found a railroad torpedo which he laid on a plank and exploded by throwing a stone on it. A flying fragment struck him under the inner corner of the right eye. The cut made in the lower lid of the eye was approximately an inch long, and at the upper end next to the inner corner of the eye the lid was cut off so that it hung down over the cheek, disclosing a wound under the eyeball into the socket of the eye. The boy was at once taken to a physician who took medical charge of the case and treated the injury for about a week.

In the meantime, the physician became convinced that there was a foreign substance lodged in the eye or socket, and being uncertain whether or not or how far the eye itself might be involved, and, not feeling competent to operate on the eye in these circumstances, he advised the employment of an eye specialist. The boy was taken to another town for the purpose of consulting an expert, but the latter was away, so he could not be seen.

The accident occurred on April 19, and on the 25th the first physician, and another who had been called in to assist, and who agreed that there was a foreign substance in the eye, made preparations to operate for its removal. But, when it came to the point of beginning the operation, the first physician telephoned to the defendant, in still another town, that the plaintiff had been injured by an explosion, and that some foreign substance had entered the orbit of the eye, and that he did not feel competent to remove it, and he arranged with the defendant to send the plaintiff to him for treatment. The plaintiff was thereupon taken to a hospital, where the defendant undertook the treatment of the case. He made no effort to learn anything further of the history of the case or its prior treatment. He did not attempt to determine by probe or otherwise whether or not there was in fact a foreign body lodged in the eye or its orbit—beyond an external examination more or less cursory in character, according to the evidence—though it was plain that the use of a probe would have easily and safely discovered the presence of the piece of tin which was afterward removed. He gave the eye attention for a few days, and then sent the plaintiff home, assuring him that there was nothing in the eye and with instructions to the first physician as to its subsequent treatment.

The eye grew steadily worse until July 18, when the first physician operated on it and removed from the orbit a piece of tin nearly an inch long and about one-half inch wide, which was buried in the tissue to such a depth that its nearest point was about a quarter of an inch from the surface. This action for malpractice was subsequently brought against the defendant and the hospital jointly, but during the progress of the trial, at the plaintiff's request, the court ordered a verdict for the hospital and the trial proceeded against the defendant alone. At the close of the plaintiff's evidence the court ordered a verdict for the defendant. The propriety of this action of the court was the only question presented to the Supreme Court.

At the outset of the discussion the parties disagreed as to the rule which was to be applied to this defendant to test the sufficiency of his diagnosis and treatment of this injury. The plaintiff claimed that the evidence was such that the defendant must be judged as a specialist, while the defendant insisted that there was no evidence to warrant the application of anything but the rule governing general practitioners. The Supreme Court quite agrees with the court below that this defendant must be judged in this case by the more exacting rule which applies to specialists.

More of the evidence on this subject came from the defendant himself. From him the court learned that he was a physician and surgeon, and for the 12 years preceding the trial he had been a specialist in the medical and surgical treatment of the eye. As early as 1902 he was regularly appointed ophthalmatist of the hospital mentioned, and then presumed that he would be and later knew that he was so named in a certain pamphlet issued by the hospital that year. At the time here involved, he had charge of the eye, ear and throat department of that institution. He said that the term "ophthalmatist" means an eye specialist; one who does everything that is required for the eye, medical or surgical. True, he said the term does not imply any special skill in such matters, but in this statement he was too modest. His 12 years of specialized practice, his selection by an institution of the high standing of the hospital to take charge of the very important department named, implied skill in the lines specified.

Moreover, the very circumstances in which he was employed in this case unmistakably showed that it was the special skill that he was understood to have in the surgical treatment of the eye which alone induced the plaintiff to seek his aid, and it was perfectly plain that the defendant so understood it when the physician made the arrangement with him to treat this injury. So the court must test his professional conduct in this matter, not by the standard applicable to general practitioners—the oft-cited and recently approved rule of Hathorn vs. Richmond, 48 Vt. 557—but by the stricter rule applicable to specialists. Whether or not this was determinative of the case the court does not say.

One who holds himself out as a specialist in the treatment of a certain organ, injury or disease is bound to bring to the aid of one so employing him that degree of skill and knowledge which is ordinarily possessed by those who devote special study and attention to that particular organ, injury or disease, its diagnosis and its treatment, in the same general locality, having regard to the state of scientific knowledge at the time. 5 Thompson on Negligence, section 6714; Feeney vs. Spalding, 89 Me. Ill.; Baker vs. Hancock, 29 Ind. App. 456; note to Gillette vs. Tucker (Ohio), 93 Am. St. Rep. at page 664.

The duty of exercising this degree of skill attached to this defendant at the time of his employment and was the measure of his responsibility in the diagnosis of the case to determine the nature and condition of the injury, as well as the proper treatment to be applied. Thomp. Neg., section 6717; Ely vs. Wilbur, 49 N. J. Law, 685. He was not to be judged by the result, nor was he to be held liable for an error of judgment. His negligence was to be determined by reference to the pertinent facts existing at the time of his examination and treatment, of which he knew, or in the exercise of due care should have known. It might consist in a failure to apply the proper remedy on a correct determination of existing physical conditions, or it might precede that and result from a failure properly to inform himself of these conditions. If the latter, then it must appear that he had a reasonable opportunity for examination, and that the true physical conditions were so apparent that they could have been ascertained by the exercise of the required degree of care and skill, for, if a determination of these physical facts resolved itself into a question of judgment merely, he would not be held liable for his error. Manser vs. Collins, 69 Kan. 290; Langford vs. Jones, 18 Or. 307; Staloch vs. Holm, 100 Minn. 276.

Tested by this rule, the evidence tended to show that the defendant's conduct did not measure up to its requirements. He had a fair chance to examine the eye, and, with the indications of the presence of the piece of tin so strong as the testimony of the first physician tended to show, it could not be said as a matter of law that the defendant in his preliminary examination to ascertain the essential data on which to predicate a professional opinion met the requirements of the rule above stated. The testimony tended to show that he did not, and the question should have been submitted to the jury, for the evidence showed that the tin ought to have been removed at the earliest possible moment.

Wherefore the Supreme Court reversed the judgment rendered by the lower court in favor of the defendant specialist and sent the case back for a new trial.

Duty When Passenger Becomes Insane on Train

The Supreme Court of Arkansas says, in Iron Mountain & Southern Railway Company vs. Woodruff, that when a passenger unattended becomes insane on a train it is the duty of the railway company to remove such passenger, where the comfort and safety of other passengers on the train require it. But in performing this duty to the other passengers the company must not neglect the duty it owes to the unfortunate insane and helpless one who is also a passenger. Here an unattended woman passenger who became insane on a train was removed from it and left in charge of the night operator at a station, whose discretion, it appeared, caused him to abandon in haste the poor unfortunate left in his care. The law, however, required that his discretion should be exercised in the direction of the woman's comfort and safety, and not in leaving her to her fate. His duty was to exercise such care as any reasonably prudent person should, under the circumstances, to protect her against harm and to provide for her comfort. If he was so alarmed that he could not do this himself, it was his duty to call to his assistance others who could. He wholly failed to discharge this duty, and for any injury that resulted to the woman from this cause the company was liable.

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

New York Medical Journal

April 24

1 *Theories and Problems of Heredity. J. Wright, New York.
2 *The Psychologic Basis of Inebriety. T. A. Williams, Washington, D. C.
3 *Acute Suppurative (Phlegmonous) Ethmoiditis in Children Resulting in Death. F. Krauss, Philadelphia.
4 Spontaneous Combustion (continued). J. Knott, Dublin, Ireland.
5 Further Investigation of the *Spirochæta Lymphatica.* F. Proescher, Pittsburg.
6 Bilateral Ununited Fracture of the Patella with Good Functional Result. S. Lange, Cincinnati.
7 Significance of High Blood Pressure in Life Insurance Examinations. R. Grace, New York.

1. **Theories and Problems of Heredity.**—Wright discusses the affiliation of the specific problems of cancer with the specific problems of heredity, and endeavors to establish the point that visible pathologic morphology in cancer, like physiologic morphology in heredity, is dependent primordially on forces which influence molecular, rather than molar, arrangement.

2. **Inebriety.**—Williams asks the following questions: What is the nature of this impulse? What is its origin? Why is it so irresistible? Finally, can it be overcome in those in whom it occurs, and how may its occurrence be prevented in others? The nature of the impulse is a state of feeling, the call of the unsatisfied, the miserable and the depressed. It is the unfortunate appanage of certain individuals, but in most cases it has arisen from ignorance and has been fostered by mismanagement. Experiments show how persons differ from day to day in mental capacity, in bodily secretions, and in activity. This is equally true of the feelings. Nearly all of us, then, must necessarily encounter phases during which our feeling is one of incapacity, even of inaptitude, discontent, disike of surroundings, anxiety, etc. If fortitude is not forthcoming to support this it is ended by an artificial stimulus. The outcome is the need for a large stimulus to overcome a trifling feeling; for the power of resistance progressively decreases by non-use. The immediate satisfaction of desire at all cost is a habit that can be made or unmade at will. It is toward this factor that the prevention of inebriety must be directed. The remedy is the teaching of mothers to form healthy emotional habits in their children. The overthrow of the method of obedience has enthroned, especially in this country, the immediate impulse of the ruling factor. The surest forerunner of unreasoning conduct in an adult is a childhood that is taught to act without understanding and to understand without acting. A vast majority of parents and teachers do not appreciate the tremendous possibility of character building through play. The superiority of play as against work in the development of a child's character is due to the interest it gives which stimulates effort. Play is the best developer of

altruism. The tremendous friction of a life of restraint on normal activity causes nervous exhaustion, and this feeling is so painful that one readily flies to what removes it, hence inebriety. On the other hand, there is danger in the non-cultivation of inhibition, for impulsiveness then rules, and meets with innumerable inducements to intemperance. It is from these two extreme types that the intemperate are mainly recruited. Another cause conducing to a psychic state favoring inebriety is the impelling by an ambitious or art-loving desire beyond one's endurance, which entails consequent loss of sleep, hasty meals, unsettledness and anxiety, often justified by business oscillations. The fourth type of inebriate differs from the others in being not psychopathic, but the creation of the environment—as in draymen, commercial travelers, our three-bottled ancestors, etc. The number of this class is rapidly diminishing with the spread of knowledge. The problem of preventing these injurious effects must be solved by economists, sociologists and legislatures, occupying themselves with the various factors of the problems pertaining to their respective sciences. But without a precise determination of the psychologic character of the individual against which they must direct their efforts, their labors must be sterile, if not injurious. Each and all must found their procedures on the study of morbid psychology.

3. **Suppurative Ethmoiditis.**—Krauss reports two fatal cases of suppurative ethmoiditis in children. He describes three acute types of ethmoiditis and sums up as follows:

1. There is an increasing conviction that acute suppurative ethmoiditis causing orbital and cerebral symptoms is not so rare a condition as has been thought.
2 *It is often rapidly fatal, especially in the young.*
3 Indications for operation in acute ethmoiditis are sudden increase in temperature, delirium at night, tumor formation in the inner wall of the orbit, the slightest exophthalmos Operation should not be delayed too long [illegible] operation is *a harmless procedure*, late [illegible]
4 When there is bilateral [illegible] generally useless, as the disease has prol[illegible] cavernous and circular sinuses, causing a general toxemia and pyemia, or fatal brain lesion.

Boston Medical and Surgical Journal

April 22

8 Case of Infrapubic Cystotomy. Three Cases of Bladder Tumor. B. Tenney, Boston.
9 Intracranial Hemorrhage in the New-born. J. R Torbert, Boston.
10 *The Luys Urine Separator. Second Report of Forty-One Cases B S Barringer, New York
11 *Peculiar Form of Family Nervous Disease Resembling Multiple Sclerosis Occurring in Children I. H Coriat, Boston
12 *Vaccines in Typhoid. W H. Watters and C. A Eaton, Boston.

10. **The Luys Urine Separator.**—Barringer supplements his first report on this instrument, which was published in the *American Journal of Medical Sciences*, March, 1907 (abstracted in The Journal, April 20, 1907, p. 1378), with a further record of 27 cases, making 41 in all. Further experience with this instrument extending over three and one-half years, confirms the conclusions of his first paper and leads him to consider the Luys separator only second in point of value to the catheterizing cystoscope.

11. **A Peculiar Family Nervous Disease.**—Coriat describes a peculiar type of nervous disease, observed so far exclusively in children of Russian Hebrew parentage. The earliest symptoms date from before puberty. The disorder seems to represent a transitional form of nervous disease, related on the one hand to Friedreich's ataxia, and on the other to multiple sclerosis, the symptoms of the latter largely predominating. There was a strong tendency for it to run in families, either in its complete form or as a group of isolated and discrete symptoms. The symptom-complex in all four cases was characterized briefly by a tremor of the hands, increased on voluntary movements, ataxia and marked changes in the reflexes. The knee-jerks were never normal, but were either diminished, absent or exaggerated. Ankle clonus was obtained once and atypical Babinski reflex twice. In two cases the ankle jerks were slight, in a third they were absent. One case showed a transitory spasticity, in another there was an atrophy of the small intrinsic hand muscles with a reaction of degeneration pointing to a bilateral affection of the anterior horn cells in the eighth cervical and first dorsal segments. There was no optic atrophy in any of the patients, and in only one case was a true nystagmus demonstrable. None of the cases showed any staggering or a tendency toward a progressive dementia or loss in weight. In two of the patients there was a moderate degree of feeble-mindedness, but even in these cases the tremor and ataxia can not be interpreted as a form of motor incoordination which is sometimes found in feeble-minded individuals, because the degree of mental weakness was too slight to permit of any such interpretation. The onset in all the cases was a gradual one. In none of the cases was there a history of an immediately preceding infectious illness A search through the literature failed to disclose any cases that were exactly identical with the author's.

12. **Vaccines in Typhoid.**—Watters and Eaton report a further series of cases of typhoid treated by the hypodermic administration of vaccines made from dead bacilli. The patients were a mother and three children, all attacked at the same time, and infected from another boy, who also came to the hospital. Typhoid was clearly demonstrated in all cases by Widal reaction, leucopenia, lymphocytosis and roseolæ. Vaccines were used on all but the youngest child, who was only slightly ill. The mother and the two children who received vaccines showed immediate abatement of clinical manifestation, and in the children, also, a rapid fall in temperature. The youngest child, however, who was not inoculated, became steadily worse, till on the fourteenth day of the disease the temperature was 104.8 F. It fell immediately with abatement of clinical symptoms on the administration of vaccines. From an observation of forty cases, the authors suggest that the early administration of typhoid vaccine seems able in many cases to shorten materially the duration of the disease or to improve the symptoms and cause it to run a mild course.

Medical Record, New York

April 24

13 *Practice of Medicine as a Career. A. Jacobi, New York.
14 *The Army Medical Service E L Munson, U. S. Army.
15 *The Naval Medical Service W H Bell, U. S Navy.
16 *The Public Health and Marine-Hospital Service M. J. Rosenau, Boston
17 *The Insurance Examiner. H. H Schroeder, New York
18 *Railway Surgical Service. C B. Herrick, Troy, N. Y.
19 *Medical Service in the Merchant Marine. J. F. Donnelly, New York
20 *Institutional Work for Young Physicians. W. P. Spratling, Baltimore
21 *Salaried Positions Open to Medical Men in the Larger Cities W G Wood, New York.
22 *Legal Rights and Obligations of the Medical Practitioner. A N Taylor, New York
23 *Postgraduate Study in Europe. G Mannheimer, New York
24 *State Medical Practice Laws. R. J. E. Scott, New York

13 to 24. **Fields of Employment for Physicians.**—Jacobi discusses the conditions, prospects and requirements of private practice. Munson, Bell, Rosenau, Schroeder, Herrick, Donnelly, Spratling and Wood describe the scope, advantages, duties, pay, allowance or other emoluments offered by the various government services and by municipalities, insurance societies, railways, and other institutions to members of the medical profession Taylor and Scott discuss various phases of the law in relation to the physician and to the practice of medicine. Mannheimer discusses the conditions, expense, localities, etc., of postgraduate instruction in Europe.

Lancet-Clinic, Cincinnati

April 24

25 Antiseptics in Minor Surgery. E F. Nippert, Cincinnati
26 Medical Chemistry E B Reemelin, Cincinnati
27 *A Disregarded Principle in the Action of Mineral Water Applied Externally. C. H. Persson, Mount Clemens, Mich

27. **Action of Mineral Waters.**—Persson says that in making external therapeutic applications of water we look for physiologic results chiefly, perhaps exclusively, from its reflex and mechanical effect. The surface is connected reflexly with the interior of the body, each portion of the skin periphery being associated through the nerve centers which supply it with nerve filaments, with some visceral periphery or vascular area The reflex effect of external applications of water to the internal vascular area is similar to, but less in intensity than,

those observed on the vascular area of the skin reflexly associated with it. The mechanical effects of external applications are commonly the reverse to those of the reflex, therefore the fundamental disturbances within the human body, the results of taking a water bath, are dependent on the relative intensity of these reflex and mechanical effects. Irritation of cutaneous nerves gives rise to contraction of the blood vessels of the surface and likewise of the small blood vessels of the interior of the body, simultaneously stimulating the accelerator nerves of both the blood vessels and the heart. The duration of the reflex effects depends on the intensity of the stimulant and of the irritant, and to some extent on the area involved. On *a priori* grounds, therefore, logical reasoning will bring us to the conclusions that if a prolonged continuous irritation is produced, reflex and mechanical effects of the same duration will be established, which would cause within the body disturbances alterative in their nature. Persson calls attention to the fact that this would explain the therapeutic effect of many saline mineral waters.

Medical Fortnightly, St. Louis

April 10

28 *Normal Salt Solution in Septic Conditions of the Peritoneum J M Taylor, Fort Smith, Ark
29 *Acute Traumatic Tetanus Treated by Magnesium Sulphate. A P Heineck, Chicago

28 Abstracted in The Journal, Nov. 14, 1908, p 1726

29. Published in *Surgery, Gynecology and Obstetrics*, January, 1909, *Chicago Medical Recorder*, February, and *Atlanta Journal Record of Medicine*, February, 1909

Northwestern Lancet, Minneapolis

April 15

30 Fracture of the Femoral Neck, and Its Treatment A S Rider, Flandreau, S D
31 Diagnosis of Joint Disease A R. Colvin, St. Paul
32 Case of Gangrenous Appendicitis G G Balcom, Lake Wilson, Minn
33 Deformities Resulting from Burns J C Whitacre, St Paul

Annals of Surgery, Philadelphia

April

34 Analytic and Statistic Review of One Thousand Cases of Head Injury C Phelps, New York
35 *Rational Treatment of Non Malignant and Borderline Tumors of the Breast C L Gibson, New York
36 *Mesocolic or Retrogastric Hernia W J Mayo, Rochester, Minn
37 Inguinal Hernia of the Cecum J B Carnett, Philadelphia
38 Hernia of the Appendix J A C Macewen, Glasgow, Scotland
39 Cystic Dilatation of the Appendix J. A Kelly, Philadelphia
40 *Prostatic Abscess S Alexander, New York

35 **Borderline Tumors of the Breast.**—Gibson holds that all neoplasms of the breast should be considered malignant until their innocence is proved. The proportion of cancer to other tumors is from 80 to 85 per cent It is in the relatively simple conditions that seem so clear, chronic or involution *mastitis*, adenomata, and the several forms of cyst, that the danger lurks, for we may let pass the golden moment when a beginning process, absolutely unrecognizable except for the revelations of the microscope, might have been seized on as a local disease and surely extirpated Gibson discusses what are dubious or borderline cases, and the question of diagnosis and treatment, and concludes that in younger individuals, up to 30, in the cases devoid of significant features, we may rely on ordinary clinical findings Past that age it becomes more and more imperative to make the diagnosis certain Once arrived at the carcinoma age it can and must be made anyhow, as some form of interference must now be the rule, so that, in the later group, the procedures of diagnosis and treatment will be simultaneous, that is, a sufficient exposure of the diseased breast must be made by an incision for the demonstration, gross and microscopic, of its nature He then recommends and briefly describes the operation of plastic resection of J. C. Warren

36 **Mesocolic Hernia.**—Mayo reports two cases of interest, not only on account of their rarity, but also because of the primary pathologic condition which appears to have been the important factor in the production of the hernias Both patients were of the type of build Martin describes as typical in Glénard's disease (*Surg. Gyn. and Obstet.*, December, 1908). The kidney of each was prolapsed, the uterus low and retroverted, and undoubtedly there was in each case a primary prolapse of the stomach. The duodenal ulcer, which existed in both, had undergone a chronic perforation, causing dense adhesions and fixing the duodenum beyond the stomach, just as the cardiac end is held normally by the esophagus. Had the ulcer been the usual type of saddle ulcer of the lesser curvature of the stomach, the hernia could not have occurred, because of the adhesive obliteration of the upper part of the lesser cavity of the peritoneum. The obstruction in both instances was extreme, the huge stomach sagging down in front of the intestines The patients were emaciated and dehydrated, and for months had been in the habit of emptying the stomach every 24 to 48 hours of a great accumulation of undigested and unpassed food products. The abdominal muscles exerted great force in these violent efforts at vomiting, compressing the intestines behind the stomach, which was fixed at each extremity and greatly prolapsed in its middle part. In this way pressure was brought to bear on the transverse mesocolon upward in the line of least resistance, causing this peculiar form of hernia

40. **Prostatic Abscess.**—In cases of multiple abscess, instead of the median perineal section and drainage of the abscess into the urethra, as described by him in 1904, Alexander believes that time can be saved and a more perfect cure made by the entire removal of the diseased lateral lobe or lobes by median perineal prostatectomy. Multiple abscesses are much more common than single abscess, and the typical large prostatic abscess is formed by the union of several of these. Operation on a single small abscess will often be followed by subsequent development of another which has been overlooked. Alexander analyzes the results of histologic examination of suppurating prostates removed in this way, and finds that they show progressively the following reason:

1. A purulent catarrhal inflammation, with exudate chiefly within the gland tubules
2 An interstitial purulent process starting from the tubules invading the surrounding stroma, destroying the tubules and stroma and forming miliary or larger abscesses—the larger abscess being produced by the union of two or more abscesses, caused by necrosis of the intervening tissue
3 Chronic exudation and productive processes These are later manifestations of the same progess of inflammation These processes are characterized by infiltration of the stroma of the prostate with mononuclear cells, the appearance of compact foci of lymphocytes, chronic edema, areas of softening composd of leucocytes, swollen degenerated epithelial cells and other fixed tissue elements, and occasionally of advanced hypertrophy and metaplasia of the tubule cells

All these lesions are often combined in a single case of prostatic abscess, showing in different portions of the prostate all three stages of the process

Journal of Infectious Diseases, Chicago

April

41 *Fecal Bacteria of Healthy Men W J MacNeal, L L Latzer and J E Kerr, Urbana, Ill
42 *Virulence of Old and Recent Cultures of *Bacillus Pestis*. G W McCoy, U S P H and M H S
43 Experimental Study of Joint Affections Induced by the Typhoid Bacillus A. G Ellis, Philadelphia
44 *Differential Methods for Detecting the Typhoid Bacillus in Infected Water and Milk D D. Jackson, and T. W Melia, Brooklyn, N Y
45 *Proliferation of Epithelium Induced by Sudan III, Scharlach Roth and Paraffin Effects of Roentgen Irradiation on the Same R L Dixon, Ann Arbor, Mich
46 *Autolysis of the Gonococcus C T McClintock and L T. Clark, Detroit, Mich
47 *Immune Bodies in Urinary Infections with Colon Bacilli and Treatment by Inoculation D J Davis, Chicago
48 *Immunologic and Experimental Studies on Pneumococcus and Staphylococcus Endocarditis E C Rosenow, Chicago

41. ***Bacteriology of Feces.***—In connection with an experiment to determine the influence of cured meats on human health, an elaborate study of the fecal flora of normal adult men was undertaken by directly counting microscopically the number of bacteria in a homogeneous suspension of the feces diluted 1 to 100. The results obtained, which can not be detailed here, form a valuable contribution to the bacteriology of the intestinal tract

42. **Bacillus Pestis.**—McCoy finds that cultures of the pest bacillus may remain highly virulent for guinea pigs and white rats after being cultivated artificially over long periods.

44. **Detection of Typhoid Bacillus.**—Jackson and Melia used a medium containing bile and lactose. In this medium the colon bacillus causes much gas and acidity, enough to stop its own growth so far that in the end the typhoid bacillus, which in the mean time multiplies rapidly, becomes the predominating organism. Transplantations in varying dilutions into Hesse agar from lactose—bile inoculated with water or milk and incubated at 37 C.—give rise to characteristic changes when the typhoid bacillus is present. By this method, typhoid bacilli may be isolated from the feces with certainty at any stage of typhoid fever, and Jackson and Melia isolated the bacillus from various sources of drinking water, including the Hudson River.

45. **Epithelial Proliferation.**—Dixon finds that a saturated solution of sudan III in pure olive oil, injected into the skin of rabbits, may cause a simple epithelial hyperplasia about the hair follicles without, however, any carcinomatous infiltration taking place. Roentgen irradiation inhibits this proliferation.

46. **Gonococcus Autolysis.**—In gonococcus cultures autolysis occurs to a marked degree, and the products of this autolysis inhibit effectively the growth of the gonococcus on artificial culture media. The effect their use may have in combating gonorrheal infection in man is to be considered later.

47. **Immune Bodies in Urinary Infection.**—Davis finds that in urinary colon infections the bacteria may vary much in certain details, and that inoculation treatment in such cases should be carried out only with the homologous germ. In the cases so treated by him good results appear to have been obtained. The fact that opsonification, bacteriolysis and agglutination in cases of urinary colon infection do not run parallel, is most readily explained by assuming the existence of specific opsonins, lysins and agglutinins.

48. Discussed editorially in The Journal, April 24, p. 1336.

Journal of Nervous and Mental Disease, Lancaster, Pa.

April

49 *Case of Sacral Tabes with Necropsy. S. Leopold, Philadelphia.
50 Adiposis Dolorosa Showing Imperfect Development of the Ribs and Vertebræ. G. E. Price, and H. Hudson, Philadelphia.
51 Case of Amyotonia Congenita. T. J. Orbison, Los Angeles

49. **Sacral Tabes.**—Leopold reports a case of tabes in which the Achilles tendon reflex was absent on both sides, and in which there was no Babinski reflex or ankle clonus. The patellar reflex was obtained on each side very promptly, especially in view of the marked wasting of the thigh muscles. The pathologic findings show that the degeneration of the posterior root zone was pronounced through all the sacral segments, and extended as high as the fourth lumbar segment. It was slight at the third lumbar segment, and in the middle thoracic and lower cervical segments only the columns of Goll were involved. The degeneration was throughout more pronounced on the right side and involved the posterior root zone from the fourth lumbar down on the right, whereas on the left side in the corresponding area many normal root fibers entered the posterior horns. In this case, preservation of the patellar tendon reflexes and the disappearance of the Achilles tendon reflexes are satisfactorily explained by the pathologic findings. Ordinarily in tabes the lumbar segments are involved, and the typical symptoms arise, including loss of patellar reflex. In this case the sacral segments showed pronounced degeneration, the lower segments were involved, but the pathway for the reflex arc had not been destroyed. The slight involvement of a few of the fibers of the reflex collaterals of the right side corresponds to the finding of a slight diminution of the right patellar reflex.

New Orleans Medical and Surgical Journal

April

52 Where was the Coin? O. Joachim, New Orleans.
53 *Nervous and Mental Effects of Masturbation. E. M. Hummel, New Orleans.
54 Case of Removal of the Gasserian Ganglion. C. W. Allen, New Orleans.
55 *Comparative Study of Blood Culture and the Agglutination Test in Typhoid. R. Lyons, New Orleans.
56 Unusual Case of Infection of Genitourinary Tract, Apparently not Amenable to Vaccine Treatment. C. W. Allen, and C. C. Bass, New Orleans.
57 Antigonococcus Serum. C. Chassaignac, New Orleans.
58 Actions of Certain Drugs on the Blood Vessels. J. B. Guthrie, New Orleans.
59 *Relative Value of Polynuclear Neutrophiles (Leucocytes) in Diagnosis, Prognosis and Treatment of Tuberculosis. W. J. Durel, New Orleans.
60 Dietetic Management of Diabetes Mellitus. I. I. Lemann, New Orleans.
61 Endoaneurismorrhaphy of the Posterior Tibial Artery. W. M. Perkins, New Orleans.
62 Traumatic Aneurism and Arterial Varix. W. M. Perkins, New Orleans.
63 Purpura Hemorrhagica. F. A. Larue, New Orleans.

53. **Masturbation.**—Hummel urges a more clean and candid discussion of this subject, which hitherto has been "jumped on" by religious prejudice. His experience in the female wards of a hospital for mental diseases leads him to the following conclusions:

> 1. The masturbation of young children is merely a form of specialized tickling without true or major sexual excitement, and practically without morbid results. The habit being most readily acquired by previously neurotic children, cause is often mistaken for effect.
>
> 2. The same practice in the adult female partakes usually somewhat of the nature of that of children, as the deeper sexual emotions do not seem to be enlisted in the act. In some women, however, masturbation is a deeply sexual affair. In instances of excessive indulgence certain alterations in the effective character are observed, such as aversion toward the male sex, inability to experience natural libido, morbid fondness for solitude, sensitiveness about matters of sex, and a tendency to attach a sexual significance to irrelevant things, loss of countenance, etc. Sometimes a neurasthenic state with irritable heart and a fear of dying is observed as a consequence of this habit in women.
>
> 3. In the male normal sexual indulgence as well as masturbation implies a higher pitch of erethism and a greater expenditure of nervous energy. The climax of excitation in masturbation is higher than in the normal intercourse, and for this reason more of an insult to the cerebrospinal centers. Excessive venery is harmful to nervous health and incompatible with a high order of mental capacity. Masturbators suffer like consequences to a greater extent. Again, psychoneurotic subjects are the only ones likely to carry this vice to such excess as to excite a distinct nervous syndrome. Often in the early stages of a psychosis the subject is observed to take up masturbation, but Hummel is inclined to look on this rather as a symptom. A temperamentally nervous patient can reduce himself to a lower depth of nervous inefficiency by the vice or induce a state of mild dementia.
>
> 4. Masturbation, then, may most properly be assigned as a sole exciting cause of some neurasthenic states, certain perversions of normal sexual inclination with more or less functional impotence, and reductions in character tone. The most profound nervous or mental result ever observed by the author as a consequence of masturbation was a profoundly neurasthenic and psychasthenic state with light dementia, in which the patient was so debilitated that he easily succumbed to a trifling intercurrent malady.

55. **Blood Culture and Agglutination Test.**—Lyons, in a preliminary report, details the results of experiments in the Laboratory of Clinical Medicine, Tulane University Medical Department, which lead him to the following conclusions:

> 1. The work on blood cultures done in this laboratory and the results of others show that the blood culture is the most reliable means of making an early diagnosis in typhoid.
>
> 2. If, for some reason, it is impracticable to take a blood culture an ear culture should be done, as its value has been well proved, and it unquestionably comes next to the blood culture in importance.
>
> 3. If the above methods are not possible, as when blood is sent into a laboratory for the agglutination test, it is highly advisable, after using the serum for the Widal test, and especially if it be negative, to try Fornet's clot culture, as the chances of making a diagnosis will be considerably increased; and since an early diagnosis in this disease is so important, no methods that appear to be of value should be left untried.

59. **Polynuclear Neutrophiles.**—Dural quotes Arneth's division of polynuclear neutrophiles into 5 classes and describes observations of his own which lead him to suggest the further investigation of this method of blood examination. If in the future it can be shown conclusively that in the normal healthy subject the blood picture shows a greater percentage of two- and three-nuclei cells, and that in the tuberculous the one- and two-nuclei cells predominate, then we shall have a valuable method added to our armamentarium, in the diagnosis, prognosis and treatment of tuberculosis. If in that blood picture we find a shifting from an abnormal to a normal blood picture after the administration of tuberculin, we shall have a valuable guide for the administration of tuberculin, and in this way we shall feel more certain and at ease while administering this valuable product, thus opening for it a broader usage.

Dominion Medical Monthly, Toronto, Canada

April

64 Kraurosis Vulvæ. F. W. Marlow, Toronto.
65 Treatment of Acute Lobar Pneumonia. G. Chambers, Toronto.

Long Island Medical Journal, Brooklyn

April

66 Early Diagnosis of Pulmonary Tuberculosis. S. R. Blattels, Brooklyn.
67 Tuberculosis of the Brain and Its Coverings in Children; Pathology and Diagnosis. L. C. Ager, Brooklyn.
68 *Bacteriologic Diagnosis of Diphtheria. J. E. Blake, Brooklyn.
69 Etiology of Cancer. G. L. Buist, Brooklyn.
70 Cancer of the Uterus. W. B. Chase, Brooklyn.
71 Radical Abdominal Operation for Cancer of the Uterus. C. Jewett, Brooklyn.

68. **Bacteriologic Diagnosis of Diphtheria.**—Blake points out that we have become accustomed to depend on health departments for a bacteriologic diagnosis of diphtheria, and asks whether the report is not often enough incorrect to make us doubtful of its accuracy in any particular case. He reports ten cases in which negative reports were given, and yet the bacillus was subsequently found. He discusses the various possibilities—incompetence, carelessness, absence of bacilli in particular tubes, too few bacilli present to be found, especially in the presence of mixed infection—and discards them all. He concludes that the only explanation lies in a difference of methods of culture. He describes the methods used by the health department and by himself, respectively, and believes that if a double cultural system were adopted, a negative report from a positive case of diphtheria would become an extreme rarity.

Maryland Medical Journal, Baltimore

April

72 *The Present Status of Tuberculosis Work Among the Poor. M. E. Lent and E. N. LaMotte, Baltimore.
73 How the Public Can Help the Medical Profession to Fight Disease (continued). G. M. Linthicum, Baltimore.

72. **Tuberculosis Work Among the Poor.**—Lent and La Motte describe the nature and purpose of the exhibit offered by them at the International Congress on Tuberculosis. The Instructive Visiting Nurse Association of Baltimore was the first district nursing association to place a special tuberculosis nurse in the field, in March, 1904. The general plan of the association's work was as follows:

> 1. Instruction of the patient in regard to the nature of the disease, the value of food, rest and air, the use and disposal of sputum cups, fillers, handkerchiefs, pockets, disinfectants and the like, supplied by the nurse. Milk and eggs, warm clothing, beds and coverings and such things as may be necessary for carrying out the open-air treatment, provided through charitable agencies
>
> 2. Instruction of the patient's family in regard to the nature of the disease; the necessity for isolating the patient by giving him a separate room, or, if this is impossible, a separate bed; the care of the utensils and clothing used by the patient, and all other necessary points which concern either the comfort and well-being of the patient or the prophylaxis of the disease.
>
> 3 Registration with the state board of health of all cases diagnosed; report made to the city health department of all houses or rooms in which tuberculous patients have died, or from which they have been removed, in order that these places may be fumigated.

In the campaign against tuberculosis, as in any other effort to deal with the evils besetting society, the two primary factors to be dealt with are humanity and environment—humanity that creates environment and environment that distorts humanity. It is the inseparability of these factors as they appear in the concrete facts of existence that renders the educational method futile in the conduct of the tuberculosis campaign among the poor. Their mentality, their attitude toward life, their manner of living, their surroundings, all of which are inextricably associated either as cause or effect, or as both, with the very fact of their poverty, absolutely preclude the possibility of their making any effective use of the instruction given them, however nicely this may be adapted to its end or however skillfully and perseveringly followed up. Tuberculosis is primarily a disease of the poor. It is among them that the issue must be fought out. The solution lies in arousing that part of the community of financial standing and intelligence to the necessity for the provision of hospitals so commodious, comfortable and easily accessible to the friends of patients, that removal will be hailed as a blessing by the classes whose poverty renders them helpless alike to save themselves and to protect the community. The article is illustrated.

Colorado Medicine, Denver

April

74 Thrombosis of the Cavernous Sinus Following Mastoiditis D. S. Neuman, Denver.
75 Thrombosis of the Intracranial Venous Sinuses of Otitic Origin. T. J. Gallaher, Denver.
76 Ocular and Orbital Symptoms of Thrombosis of the Cavernous Sinus. E. Jackson, Denver.
77 Immunity in Tuberculosis. W. W. Williams, Colorado Springs.
78 Immunity in Tuberculosis. G. B. Webb and W. W. Williams, Colorado Springs.
79 Causes of Death in the Registration Area of the United States. E. Lawney, Denver.

Buffalo Medical Journal

April

80 From the Patient's Point of View. G. M. Gould, Ithaca, N.Y.
81 Diagnosis of Pancreatic Affections. J. Burke, Buffalo.
82 The Citizen Doctor E. Munson, Medina, N. Y.
83 *Endothelioma of the Bone Following Injury. G. W. Cottis, Batavia, N. Y.

83. **Endothelioma of Bone.**—Cottis discusses a case, the twenty-fifth on record, in order that this condition may be recognized before it has advanced beyond the operable stage; he emphasizes certain conclusions whose importance is demonstrated by his case and by those previously recorded. These conclusions apply also to the sarcomata.

> Malignant changes in the bone marrow or in the periosteum may result immediately from trauma, either slight or severe.
>
> Pain is present early if the neoplasm originates centrally, *i. e.*, in the marrow, or if it begins in the periosteum and early involves a nerve trunk On the other hand, pain may be entirely lacking and the first symptoms may be spontaneous fracture.
>
> There may or may not be palpable tumor formation.
>
> Malignant disease of the bone marrow is likely to cause a pronounced eosinophilia and may cause a pernicious type of anemia.
>
> The long bones are the ones most often primarily affected. Metastases occur in a majority of cases, their seat being most often in other bones The next most common sites are the lungs, liver and lymphatic glands, in the order named.
>
> In any case of injury to bone followed by an undue amount of pain, in all cases of unexplained delayed union of fractures, in all cases of palpable tumor of bone, in all cases of spontaneous fracture, a blood analysis should be made. Eosinophilia, with or without lymphocytosis, anemia or the presence of nucleated red cells, points to serious bone marrow trouble The urine should be examined for Bence-Jones proteid, the presence of which indicates myeloma, and hence contraindicates operative procedure.

Iowa Medical Journal, Des Moines

April

84 Diseases of Joints Following Injuries, Especially of the Hip and Knee W Woodbridge, *Central City, Ia.*
85 Multiple Abscess of the Liver Following Appendicitis. A. G. Burge, Iowa City, Ia.
86 *Choice of Operation for Chronic Inguinal Hernia. W. H. Allport, Chicago
87 Surgical Preparation. B. L. Eiker, Leon, Ia.
88 Diagnostic Value of the Cystoscope. H. G. Welpton, Des Moines.

86. **Inguinal Hernia.**—Allport endeavors to show where each of the many and diversified operations for chronic hernias of the inguinal region may find special application. He reviews the history of the development of the radical operation for hernia from Czerny's time and tabulates the types of herniotomy and the etiologic classification of hernia. He bases his considerations of treatment on the method of handling (1) the sac; (2) the internal ring; (3) the cord; and (4) the canal and muscle. It is evident that we can hold no single operation as the key to salvation for all hernias.

Texas State Journal of Medicine, Fort Worth

April

89 Sixty Cases of Pus-Tube Operations Without a Death. W. W. Samuell, Dallas
90 Ophthalmia Neonatorum. J. O. McReynolds, Dallas.
91 Bronchopneumonia L. L. Harris, Cuba
92 Dislocation of the Spine. C. A. Gray, Bonham.
93 Postoperative Dilatation of the Stomach. B. C. Eskridge, Houston.
94 Important Details in Laboratory Work. W. F. Thomson, Beaumont.
95 Personal Observations in Latent Malaria. J. W. McLaughlin, Austin.
96 *Chorioepithelioma. A. L. Blesh and C. E. Lee, Oklahoma City.
97 Laparotomy in Tuberculous Peritonitis. W. M. Yater, Cleburne.

96. Abstracted in THE JOURNAL, Nov. 14, 1908, p. 1727.

Interstate Medical Journal, St. Louis

April

98 *Theory of the "Complex." W. A. White, Washington, D. C.
99 Congenital Syphilis in Infants. I. A. Abt, Chicago.
100 *Lupus Erythematosus. M. F. Engman, and W. H. Mook, St. Louis.
101 Primary Abscesses of the Abdominal Wall. M. W. Myer, St. Louis.

98. **The Complex.**—White points out that the term, as used in his article, while comparatively new, does not correspond

to an altogether new idea. It is but the recent German clothing that has hitherto found expression in the term "dissociated state." With the advent of the theory of the complex, however, the study of conditions formerly described as the dissociated states, has led to a considerably broader connotation for the term complex as used to-day than for dissociation. He discusses mind as an adaptive mechanism and its various modes of reaction. He defines the term complex as a constellation of ideas associated together, grouped about a certain event, which event conditions a highly painful emotional state. He describes types of defense reactions of the mind against such complexes by (a) *forgetting*; (b) the theory of compensation: (c) changes in mental moods, attitudes, character, etc. He discusses various modes of the complex, and finally says:

> The main conclusions to which his paper tends are that the operations of the mind are never fortuitous—if we ever see mental events that have no efficient cause it is only because we are not in possession of all the facts. Ideas neither arise spontaneously nor do they exist without having established relations with other ideas—again because of a good and sufficient reason. The relationships thus established are brought about and cemented by the emotional content of the event which brings them together, and they bear thus a relation of interdependence as among themselves—they are constellated. These constellations exist as the mental counterparts of events and correspond to experiences which have emotional content. Thus do our sorrows and our pains, our longings and our desires, in fact, all of the springs for action, exist as organized though submerged groups of ideas which, from behind the scenes, as it were, direct our conduct.

100. **Lupus Erythematosus.**—Engman and Mook report six cases of lupus erythematosus, to illustrate some of the many unique phases of the disease. It expresses, if any disease of the skin does so, some constitutional derangements, most marked and spectacular, in the acute, fulminating, disseminated types of the disease which show coincidentally signs of visceral involvement. Lupus erythematosus remains a mystery in its etiology and disappointing in therapy. Modern study points to some *constitutional derangement* or to toxemia as cause. This, however, may be only predisposing, and the fixing of a chronic inflammatory process called lupus erythematosus may necessitate an external or exciting factor like an erysipelas, burn, trauma, frostbite, exposure to heat, sun, wind; or an *inflammatory* disease, of which eczema may be *taken* as a type.

Kansas City Medical Index-Lancet

April

102 Diagnosis of Friedreich's Disease. F. C. Neff, Kansas City.
103 Cutaneous Tenderness in Appendicitis. J. G. Sheldon, Kansas City.
104 Chronic Desquamative Nephritis. W. C. Abbott, Chicago.

Albany Medical Annals

April

105 *Psychotherapy. H. Hun, Albany.
106 *The Paravertebral Triangular Area of Dulness in Pleural Effusions (Korányi-Grocco Sign). H. C. Gordinier, Albany.
107 State Ownership of the Head Waters. C. G. Rossman, Hudson, N. Y.

105. **Psychotherapy.**—Hun discusses the subject historically and at large, and devotes particular attention to Eddyism and the Emmanuel movement. His explanation of the acceptance of the basic statements of Mrs. Eddy's book by persons of good education and more than ordinary intelligence in other matters, is that our religious leaders and guides have for so many centuries forbidden us to use our reason in such matters, and have accustomed, and even compelled us, to accept incredible things by faith, that they have prepared a favorable soil for Mrs. Eddy's doctrines. The wonderful cures reported under both Eddyism and Emmanuel movement and other forms of mental healing, he says, are not strange to a physician. Such rapid and complete cures are constantly occurring in ordinary medical practice. He has himself seen paralyses of long standing disappear under a treatment sometimes of five minutes' duration, sometimes of five days'.

106. **The Paravertebral Triangle.**—Gordinier cites Korányi's works to show that he anticipated Grocco in calling attention to what is now known as "Grocco sign," by some five years, though he sees no reason to doubt the absolute independence of Grocco's discovery. He proposes that it be called the Korányi-Grocco sign. He reviews the literature of the subject and reports a case with autopsy findings. He holds that in view of the autopsy findings this case proves that the presence of a typical paravertebral triangular area of dulness may, as has been shown by Smithies and Ewart, be due to extrathoracic disease. It also shows that while the Korányi-Grocco sign is of greater diagnostic value in the recognition of pleural effusion, it is by no means pathognomonic. He draws attention to the fact, repeatedly verified by him, that in massive pneumonias a dulness over the lower spine exists, producing an area of dulness parallel to the spine, but not of a triangular shape. Korányi, *in a recent* article on this subject, also refers to this fact, and emphasizes the distinction between it and the triangular area of dulness so characteristic of pleurisy with effusion.

Journal South Carolina Medical Association, Greenville

April

108 The Religious Press and Quackery. R. E. Hughes, Laurens.
109 Cases Illustrating the Diagnostic Value of X-Rays. R. W Gibbes, Columbia.
110 Medical Ethics. F. L. Potts, Spartanburg.
111 Advantages of *Organization*. W. H. *Dial*, Laurens.
112 Acute Otitis Media. E. W. Carpenter, Greenville.
113 The Great White Plague. O. B. Meyer, Newberry.

Cleveland Medical Journal

April

114 *Modes and Sources of Infection in Tuberculosis. M. P. Ravenel, Madison, Wis.
115 The Medical Expert. T. A. Burke, Cleveland.
116 *Eclampsia.* E. O. Houck, Cleveland.
117 Bismuth Injections for Treatment of Old and *Secreting Fistulas.* W. G. *Stern*, Cleveland.
118 Medical Cleveland in the Nineteenth Century (continued). H. E. Handerson, Cleveland.

114. **Infection in Tuberculosis.**—Ravenel divides his subject into two main propositions: (1) The modes of infection, and (2) the sources of infection. He details experiments to show that tubercle bacilli not only penetrate the intestine, but reach the lung within the period of digestion. He discusses the statistics from various parts of the world with reference to intestinal primary tuberculosis, and concludes therefrom that it can not be upheld that primary intestinal disease is a rare or negligible quantity, as Koch asserts. A consideration of the statistics forces one of two conclusions on us: First, that pathologists find primary intestinal tuberculosis when their attention is directed to a careful examination for it; or else that the weight of Koch's authority, when he said in 1901 that there was no danger of transmission from cattle to man, led to carelessness in the use of milk, and that the death rate from this form of tuberculosis has consequently increased. With our present knowledge, however, Ravenel does not think that we can deny that respiratory infection is responsible for the greater number of cases of tuberculosis. We must admit that man is the greatest danger to man, but the danger to man from the milk of tuberculous cattle must also be considered. He discusses the transmission of bovine tuberculosis to man, and while the proportion of cases due to the bovine germ can not be fixed, it is certainly far from insignificant. It is almost certain that the bovine tubercle bacillus changes in the human body, so that its characteristics can not be recognized. It has been definitely proved that the mammalian bacillus can be changed into the avian bacillus, the differences between which are much greater than those between the human and the bovine. He believes that the evidence proves conclusively that the digestive tract, as a portal of entry for the tubercle bacillus, is much more important than has been heretofore supposed, even though, for the present, we must acknowledge that the respiratory tract is the *chief* avenue of invasion.

Northwest Medicine, Seattle, Wash.

April

119 Surgical Complications of Typhoid. S. W. Mowers, *Tacoma*, Wash.
120 Senile Cataract. R. L. Nourse, Boise, Idaho.
121 Lymphoid Tissue. F. J. Van Kirk, Bellingham, Wash.
122 *Relation of the Pathologist to the Clinician. W. S. Griswold, Seattle.

122. Discussed editorially in this issue.

Journal of Ophthalmology and Otolaryngology, Chicago

April

123 Postgraduate Medical Instruction in Vienna. A. E. Davis, New York.
124 Physiology of the Cochlea in Relation to Tóne Perception. G. E. Shambaugh, Chicago.
125 Spontaneous Recovery from Apparent Lateral Sinus Infection. E. C. Ellett, Memphis, Tenn.

Journal of the Medical Society of New Jersey, Orange

April

126 *Resuscitation of Persons Shocked by Electricity. E. A. Spitzka, Philadelphia.
127 The Uterine Curette: Its Uses and Dangers. C. L. DeMerritt, West Hoboken.
128 Penetrating Wounds of the Abdomen. W. P. Glendon, Cedarville.,
129 Psychoneuroses of the Motor Car. W. Dodge, Orange.
130 Importance of Studying the Conditions of the Heart Muscle in Various Diseases. H. A. Hare, Philadelphia.
131 Value of the X-Rays in Chest Diagnosis. A. L. Gray, Richmond, Va.

126. **Treatment of Shock by Electricity.**—Spitzka refers to the danger of fatal electric shock due to the increasing use of electricity as an industrial agent. He describes the mode of execution by electricity and the pathologic findings on autopsy. Death by electricity may be preponderatingly due to heart paralysis, with fibrillary contractions of this organ, or to asphyxia, or both combined. The cessation of respiration is a secondary phenomenon, though usually simultaneous with the cessation of normal heart action. In cases of good contact, however, with a high tension current, there may be no heart paralysis, but only respiratory failure, and in such cases respiration may be re-established spontaneously or artificially. The prognosis is good only in cases in which there is some heart action and respiration, the former particularly. The stricken individual must, of course, be taken out of the circuit if he be not already freed from it. Bystanders can do this with rubber gloves, or with hands wrapped with thick, dry, woolen material, by pulling at the victim's clothing, by sticks of wood, or, if in contact with a wire, this may be cut with a nipper with insulated handles. This must be done with caution, as the momentary arc formed between the separated ends may blind the rescuers.

The patient should be laid with the head a little higher than the body, and artificial respiration be begun promptly by compressing the thorax about 18 times a minute, with the hands applied flat to the sides and lower part of the chest. The tongue must be drawn forward. Massage over the heart, faradization, the electrodes applied to the neck and heart region, or adrenalin injection by Crile's method, may be used to stimulate heart action. The epiglottis may be tickled with the forefinger. Other methods that have been suggested are lumbar puncture, venesection, the application of the Leduc current and in the last resort a high tension shock of short duration.

Ophthalmology, Seattle, Wash.

April

132 Arteriosclerosis as a Factor in Obstruction of Central Retinal Vessels. P. Fridenberg, New York.
133 Prealbuminuric Retinitis. H. H. Martin, Savannah, Ga.
134 Intraocular Disease Brought on by Disease of Nasal Sinuses. H. Gradle, Chicago.
135 Fibroma of the Sclera. E. H. Oppenheimer, Berlin, Germany.
136 Membranous Conjunctivitis with Systemic Complications. H. F. Hansell, Philadelphia.
137 Treatment of Corneal Ulcers. J. A. Donovan, Butte, Mont.
138 Amaurotic Family Idiocy. B. E. Fryer and J. S. Lichtenberg, Kansas City, Mo.
139 Practical Relation Between Refraction, Accommodation, Age and Occupation. F. B. Eaton, Portland, Ore.
140 Dependence of Ophthalmology on Other Branches of Medicine. J. Green, St. Louis.
141 Sympathetic Cyclitis with Complete Recovery. T. H. Butler, Coventry, Eng.

Alabama Medical Journal, Birmingham

April

142 New Instruments of Use in Surgery of the Nose and Throat. E. Pynchon, Chicago.
143 Spectacle Fitting in Ophthalmology. S. L. Ledbetter, Birmingham.
144 Duodenal Circle—(Arcus Duodenalis). B. Robinson, Chicago.
145 Pellagra. C. M. Rudulph, Birmingham.
146 Treatment of Pneumonia. E. P. Lacy, Bessemer.
147 Cancer of the Uterus. E. Lanphear, St. Louis.
148 Dr. Bryan Watkins Whitfield. J. D. S. Davis, Birmingham.
149 Progress in Collecting Vital Statistics. E. H. Sholl, Birmingham.

University of Pennsylvania Medical Bulletin, Philadelphia

April

150 *Surgical Treatment of Trifacial Neuralgia, including a Series of 23 Intracranial and 15 Extracranial Operations with One Death. C. H. Frazier, Philadelphia.
151 Tuberculosis of the Appendix. G. P. Müller, Philadelphia.
152 Pure Adenoma of the Breast. J. Speese, Philadelphia.
153 Prevention of Postoperative Adhesions Between the Cortex and Dura. F. Prime, Philadelphia.

150. **Operation for Trifacial Neuralgia.**—Frazier says that according as we are dealing with a minor or a major neuralgia, a peripheral or central operation will be called for. The technic of these has been well-nigh perfected; the physician should no longer harbor the traditional dread and fear of operation on the Gasserian ganglion. Too often the operation is put off until the patient is addicted to the morphin habit, depleted in strength and vitality by drugs, sleepless nights and years of intense suffering. The Gasserian ganglion is easily exposed, hemorrhage and shock *need no longer* be considered elements of danger; death from shock or from hemorrhage does not occur in experienced hands; the risks of operation are only those associated with any other major procedure. Recovery from the effects of the operation is rapid; the patients are frequently up and about on the third or fourth day, and the ultimate results are, to say the least, most gratifying both to patient and operator. Frazier knows of no other surgical procedure which, from every point of view, offers a greater and more permanent measure of relief. He describes the operation in detail.

FOREIGN

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

Lancet, London

April 10

1 *Disorders of the Cerebral Circulation and Their Clinical Manifestations. A. E. Russell.
2 Etiology of Acne Vulgaris and Its Treatment by Vaccines. A. Fleming.
3 *Physiologic and Therapeutic Properties of Serum of Milk (Lacto-Serum). R. Blondel.
4 Treatment of Exophthalmic Goiter with Milk of Thyroidless Goats. W. Edmunds.
5 Radiography as an Aid to the Diagnosis of Diseases and Injuries of Skull and Brain. R. Knox.
6 Tuberculin Therapy. A. J. Landman.
7 Cerebrospinal Fluid in General Paralysis and the Nervous Lues. G. S. Williamson.

1. **Disorders of the Cerebral Circulation.**—In the second Goulstonian lecture Russell discusses the correlation between the circulatory changes postulated as the precipitating factor in the epileptic fit and the various symptoms of, and the recovery from, the attack. Under this head he discusses the aura, unconsciousness, convulsions, the physiologic mechanism from recovery underlying epileptic fits, and postepileptic phenomena. He *considers vasomotor spasm in the brain* as a cause of epilepsy and discusses *petit mal*, infantile convulsions, and Jacksonian convulsions. He describes the symptoms following on prolonged and cerebral anemia as well as similar symptoms resulting from prolonged chloroform syncope.

3. **Lacto-serum.**—Blondel describes experiments made with the lacto-serum of cow's milk, which possesses some very interesting properties. As regards its saline constituents it behaves like a solution in which sodium chlorid, milk sugar, and phosphates of the alkalies and alkaline earths predominate. As regards its ferments, it has a resemblance to extracts of animal organs and to animal serums; like them, it contains certain oxydases, the importance of which is only beginning to be known, and which impart to all serums several properties in common. He next discusses the ferments of milk, and says that the practical results observed in the use of sterilized milk deprived of its ferments seem to show that the latter are of only secondary importance when the milk is introduced into the digestive tract. When the milk is converted into lacto-serum, however, and this is injected into the skin, the specific action of the ferments is pronounced. He describes the effect of the injections and points out as a distinct and peculiar phenomenon belonging specially to this serum, a notable lowering (or what might be more correctly called a "regularization" of the blood pressure in the

arteries and capillaries). Therapeutically, he has used lacto-serum in puerperal infections (results variable); postoperative peritonitis (unsuccessful; there was evident prolongation of the patient's resistance, but a fatal issue was not averted); typhoid fever (one remarkable result but of doubtful interpretation; three cases no result); pneumonia (results every way remarkable and constant, defervescence always setting in after the second injection, or even after the first); arterial hypertension in arteriosclerosis. In this last condition lacto-serum has its most interesting application. A fall of blood pressure and mitigation of the general symptoms ensued. It was noted that several of the patients treated for the last-named condition had albuminuria, which was always somewhat increased during the first days of treatment. If the albuminuria depends on hypertension alone it disappears quickly and permanently in patients who persevere with the treatment, but if renal lesions are present the albuminuria, after the initial increase returns to its original amount. This supplies a convenient method of distinguishing between the albuminuria of hypertension and true organic albuminuria. Blondel describes his method of administration—a daily injection of 10 c.c., repeated in twenty-four hours if the effect has not been sufficient, until the blood pressure has fallen to normal—and also the preparation of the lacto-serum.

British Medical Journal, London

April 10

8 *Paralysis of the Movements of the Trunk in Hemiplegia. C. E. Beevor.
9 *Traumatic Heart Disease and Compensation for Accidents. L. E. Shaw.
10 Treatment of a Case of Extensive Infantile Paralysis by Operation and Apparatus. R. P. Rowlands.
11 *Nerve Sheath in Causation and Treatment of Neuralgia. R. M. Simon.
12 Aural Vertigo. W. S. Syme.
13 Lead Poisoning in Childhood. A. J. Turner.
14 Crossed Paralysis. G. Lambert.

8. **Paralysis of Trunk Movements in Hemiplegia.**—Beevor essays to show that in some cases of hemiplegia—let us say left—the trunk muscles of each side act weakly when they take part in left-sided movement and the same muscles act normally when they take part in right-sided movement; also that the movements of the trunk requiring bilateral action of muscles are very little or not at all affected. He discusses the question of the change in representation of one and the same group of muscles from one hemisphere to the other accordingly as they act in right-sided or left-sided movements; and also the question of movements requiring bilateral action of muscles in one or both hemispheres. He describes a case of hemiplegia in which certain movements of the trunk were defective, so that, among other defects, the patient fell toward the hemiplegic side in trying to sit up. He analyzes the muscles which take part in these defective movements and compares these voluntary movements with those produced by morbid conditions in man, or elicited by cortical electric stimulation in animals in reference to representation of the movements in one or both hemispheres, and he describes the methods of ascertaining these defective movements in man. The movements which we must ask the patient to perform must be unilateral, for the bilateral movements are less liable than the unilateral movements to be paralyzed in hemiplegia. The unilateral movements consist in abduction from the midline to the right and left, adduction from the right and left to the midline, and rotation of spine with the face turned to the right and then to the left. All these movements should be tested with and without resistance, which should be applied by the hand of the observer against the patient's shoulder, and also both in the position of lying down and in that of sitting up in bed when this is possible; and particular notice should be taken in the latter position whether or not the patient is unable to prevent himself falling to one side.

9. **Traumatic Heart Disease.**—Shaw points out that with the increasing tendency toward insurance against accidents, the possibility of an injury being the cause of a disease concerns the profession of to-day more than ever before. He divides traumatism of the heart into three classes: (1) Those with obvious external injury, as in wounds, crushing of the thorax, etc.; (2) those in which there is a disruptive lesion of the heart which is certainly not due to external violence—a patient is found dead with blood in the pericardium and the heart torn, generally in such cases disease of the heart muscle may be found; (3) cases of laceration of the valve and great distention of the cavity consequent on some fierce strain, in which the patient survives the injury, thereby differing from the other two classes in which he has not survived. In this last class the heart may have been previously healthy or there may have been antecedent disease. Shaw discusses the professional difficulties connected with this increasing tendency of the community to insure against the results of accidents. To the previously existing duties of seeking out the causes of disease, inducing reluctant patients to put preventive measures into effect, and of curing the patients when sick, there has now been added a totally new duty, that of holding the balance even between conflicting pecuniary interests, the just settlement of which can be determined only by the aid of medical knowledge. He gives several illustrative cases and asks careful consideration of the question, because it seems likely that if the work of deciding these pecuniary interests continues to be carried on as at present, it must lead to a degradation of the profession in the eyes of the public. To meet the difficulty of conflicting medical opinion under such circumstances, he suggests that the profession should insist on being, and being regarded as, arbitrators and not advocates. It should not be impossible to set up a special tribunal to deal with those questions, in which independent medical men with special experience should act in a judicial capacity as arbitrators or assessors to a legal arbitrator. Another means would be to substitute an insurance against invalidity of all sorts for that against the result of accident. He points out, also, that we should now recognize that as a profession our peculiar relations are necessarily somewhat different in regard to those persons who are insured and those who are not. Formerly, incapacitation of any bread winner rendered him at once a suitable object for charity, but since insurance became common it becomes a doubtful question whether the medical profession should give their services without payment, in order to save the insurance companies from the responsibility of paying their agreed liabilities. Finally, the author makes an earnest plea for the support of medical organization.

11. **The Nerve Sheath in Neuralgia.**—Simon says that it is not sufficiently recognized that the pressure, which is such an important factor in neuralgia, may arise, not only from outside, but from changes within the perineurium, due first, to the extension of inflammation from surrounding tissues; second, to such toxic conditions of the blood as have a tendency to cause proliferation of the connective tissue in the immediate neighborhood of blood vessels, as in chronic alcoholism; or third, to acute congestion of blood vessels in the sheaths of the nerves, as often occurs in influenza. While morphologically it may be true that there is no such thing as a nerve sheath in the sense that there is no separate structure which can be clearly defined and exhibited, it is nevertheless the case that the connective tissue which forms a nerve sheath is continuous externally with the connective tissue outside it, and that from its inner surface fine trabeculæ of connective tissue extend to form a protective covering between and round the myelin and axis cylinders of the nerve element. Blood vessels are carried on all these connective tissue structures, and it is on the congestion of these vessels that Simon believes pain to depend. He quotes two cases in which tough red adhesions were found between the sheath and nerve, and, after breaking them down, the nerve was stretched inside the sheath. The result was entirely successful.

Medical Press and Circular, London

April 7

15 Duodenal Ulcer: Its Diagnosis and Surgical Treatment. J. Sherren.
16 Three Cases of Malignant Disease of the Nasopharynx. W. Stuart-Low.
17 Myasthenia Gravis. W. B. Warrington.
18 *X-Ray Treatment of Tuberculous Glands. A. H. Pirie.

18. **Tuberculous Glands.**—Pirie says that the effect of an efficient dose of *x*-rays in cases of tuberculous glands may be twofold: (1) It may raise the opsonic index from below normal to normal; (2) it may kill giant cells which are forming. The first change is not sudden, like that following injection of tuberculin. With regard to the second change, he points out that those cells most easily killed in the human body are those that grow quickly, *e. g.*, the reproductive cells at the hair roots and in the testicle. It has been shown that giant cells at one period grow quickly and are therefore easily killed. He describes the method and dose of *x*-rays used and concludes that tuberculous glands in the neck can be successfully treated, both before and after they have broken down. The best time to begin treatment is when the glands are growing larger. On two occasions he has seen a fluid gland become absorbed without opening on the surface. Usually when a gland has become fluid it opens on the surface and heals in a month when *x*-ray treatment is going on. Rather than let the gland burst when it is fluid, he intends, when he finds a case, to aspirate the fluid aseptically and go on with *x*-ray treatment. The contents of the gland are sterile and their removal must occur before healing takes place. The cosmetic effect when *x*-ray treatment is begun, is excellent, as no scar is left. The glands shrink to small, hard nodules of scar tissue, which remain under the skin, do no harm, and are not visible, though they may be felt. Tuberculous glands often disappear spontaneously; and while in his cases, he says, he may have done little good, he has always been careful to do no harm.

Clinical Journal, London

April 7

19 Venous Thrombosis. F. de H. Hall.
20 Operation for Breast Cancer. W. S. Handley.
21 *How to Preserve the Pupil when Operating for Cataract. C. B. Taylor.

21. **Cataract.**—Taylor refers to cases of cataract which showed no trace of operative interference, in which there was no pain either during or after operation, and in which there was restoration of excellent sight in patients of very advanced age. In some cases the patients were able to read without glasses. When operating, he stands behind the patient, who is reclined, and almost invariably uses artificial light. The eyeball is fixed with a little spear-shaped instrument, the *"pique de Pamard,"* which gives control with far less traumatism than that attendant on the use of ordinary fixation forceps. He then enters the point of a trowel-shaped knife in the cornea close to the sclerotic at the base of the flap, which, when completed, will comprise one-half of the cornea. The knife is then pushed quickly across the anterior chamber until it emerges at a counter puncture similarly placed, is sawed rapidly upward, and then turned forward so as to complete the section in the upper border of the cornea; the capsule is then freely lacerated through the natural pupil and the lens extruded by slight pressure at the lower border of the cornea. He denounces as mistakes the ideas that iridectomy prevents prolapse of the iris, permits of complete evacuation of the cortical débris or that a preliminary iridectomy prevents subsequent glaucoma. There are patients whom it is possible to treat effectually under the influence of subconjunctival injections of potassium iodid and judicious dilatation of the pupil.

Journal of Tropical Medicine and Hygiene, London

April 1

22 *The Hereditary Factor in Disease and Its Importance in the Selection of Candidates for Foreign Work. T. N. Kelynack and G. B. Price.
23 Relapsing Fever in Tangier. G. R. Breeze.
24 Remarks on Drs. Breinl and Hindle's Paper on "A New Porocephalus." L. W. Sambon.
25 Hill Diarrhea. A. G. Newell.

22. **The Hereditary Factor in Disease.**—Kelynack and Price undertook a collective inquiry among medical officers of missionary societies, in reference to the bearing of heredity in the selection of candidates for foreign work, and emphasize the following points as a result of the analysis:

Class 1.—Candidates whose family history should determine their refusal: (a) insanity and well-marked *neuroses*, including epilepsy in one or both parents, should be a bar to acceptance, even when the candidate appears physically and mentally sound; (b) family syphilis should always be considered an adequate cause for rejection.

Class 2.—Candidates for whom a select field should be chosen: While a family history of tuberculosis may call for (a) postponement of the application of the candidate until 27 or 30 years of age, or (b) rejection, if the candidate is himself a "borderline" case, for not a few it would seem justifiable that the candidates should be allowed to work under regulated conditions of life in a carefully selected field.

Class 3.—Candidates whose unfavorable family history may not be considered as a bar to foreign service: A history of short life in the family—unless due to tuberculosis—cancer, adolescent diabetes, gout, rheumatism, fever, and deafness in several members of the family, unless the candidate is a "borderline" case. A family susceptibility to infectious disease, tuberculosis excluded.

Indian Medical Gazette, Calcutta

March

26 Sanatorium Treatment of Tuberculosis. T. H. Delany.
27 Tubercle of the Lungs in Bengal Jails. J. Mulvany.
28 Katatonia in India. G. F. W. Ewens.
29 Antiseptic Surgery in Frontier Warfare. A. E. Berry and R. C. MacWatters.
30 Bites of the *Echis Carinata.* W. E. Moncrieff.
31 A Year's Abdominal Surgery. W. J. Wanless.
32 An Outbreak of Mumps. J. K. Sen.
33 Occurrence of Accessory Lobules of the Spigelian Lobe of the Liver. V. E. H. Lindesay.

Annales de Gynécologie et d'Obstétrique, Paris

March, XXXVI, No. 6, pp. 129-192

34 Fibromas of Lower Segment of Uterus. *G. Fleux.*
35 Congenital Fetal Endocarditis. R. Lefour and G. Fleux.

Annales de l'Institut Pasteur, Paris

February, XXIII, No. 2, pp. 97-176

36 *Cutaneous Parasites—Acari—and Cancer. (Acariens et cancer.) A. Borrel, Gastinel and C. Gorescu. Id. and Leprosy. A. Borrel.
37 Protecting Properties of Serum of Animals with Chronic Trypanosomiasis. Races Resisting this Serum. F. Mesnil and E. Brimont.
38 Behavior of Precipitins of Antivenom Serum with Cobra Venom. A. Calmette and L. Massol.
39 Research on Anaphylaxis. VI. (De l'anaphylaxie lactique.) Besredka.

36. **Acari and Cancer.**—Borrel thinks that the occurrence of spontaneous cancer in certain houses, streets and cages suggests the possibility that the virus causing the malignant disease may be carried by some cutaneous or other parasite from one subject to another. He has discovered helminths, mites, especially acari, in the depths of cancers on rats and nematodes in the circulating blood of mice with lymphomas, and has recently found acari present in a number of cases of cutaneous cancers in the clinic. He gives a detailed and illustrated description of twelve patients with superficial cancer in the depths of which he found numerous acari. The almost constant presence of the parasites in the follicles just undergoing cancerous transformation is certainly suggestive, and he urges others to search for them, especially in incipient epitheliomas, to determine whether their presence is the rule or was merely a coincidence in his cases. The presence of the acari in the follicle leads to hypertrophy of the sebaceous glands and the tumors develop preferably at such points. He found acari on numbers of other inmates of the hospital, free from cancer, but never in such numbers as in the cancer cases. In the young the parasites never had invaded the sebaceous glands. He found the acari also in cases of mammary cancer, and constantly present in mouse cancers. He is convinced that the ectoparasites for the skin and endoparasites for the internal organs certainly have something to do with cancer, either by transporting the virus or by favoring infection, and advises measures to destroy acari as an important aid in the prophylaxis of both cancer and leprosy, both for the persons affected and the contacts.

Annales de Médecine et Chirurgie Infantiles, Paris

March 15, XIII, No. 6, pp. 181-216

40 *Tumor of Cerebellum in Girl of 10. (Nouveau cas de tumeur du cervelet chez l'enfant.) E. Gaujoux and W. Mestrezat.
41 *Cerebrospinal Meningitis of Eleven Months' Duration. Recovery. M. R. Debré.

April 1, No. 7, pp. 217-252

42 *Atypical Forms of Tuberculous Meningitis in Children. E. Gaujoux and A. Juséphovitch.
43 Points of Physical and Moral Hygiene for Children. Foveau de Courmelles.

40. **Cerebellar Tumor in Child.**—This is the second case of cerebellar glioma in a child reported by Gaujoux *with microscopic* examination. In this latter case the first symptoms were observed five years before the fatal termination. The

tumor had been diagnosed as a tuberculoma on account of existing tuberculous processes elsewhere; there was no external hydrocephalus, but the internal was sufficient to explain the vomiting, blindness, etc. Puncture relieved the headache and vision each time temporarily, but the case was too far advanced when first seen to permit of durable improvement. As the atony of the muscles increased and spread, the reflexes became exaggerated—a sign of location only observed, he thinks, with a cerebellar tumor. The cerebrospinal fluid was free from evidences of reaction on the part of the meninges. The tumor was extremely vascular, almost erectile, which explains the abrupt and considerable fluctuations in the intensity of the symptoms observed.

41. **Cerebrospinal Meningitis of Eleven Months' Duration.**—Debré's patient was a girl of 8 and afebrile periods with subsidence of symptoms occurred from time to time, sometimes lasting for three weeks, after which the symptoms flared up again. This prolonged type of meningitis is liable to be accompanied by intense emaciation, of which this case was a typical example. Complete deafness developed a few days after the first onset of the disease, as also epileptoid tremor, exaggeration of the reflexes and rigidity, with vasomotor and trophic disturbances, but all these symptoms proved to be curable in time; even the deafness showed signs of improvement by the end of the year. Lumbar puncture was done three times; the cerebrospinal fluid contained a large proportion of albumin with numerous misshapen polynuclears and a few lymphocytes, but no micro-organisms could be detected. Treatment included tepid baths, guaiacol inunctions and administration at times of pepsin and hydrochloric acid to aid digestion and Debré ascribes the final recovery partially to these measures.

42. **Atypical Forms of Tuberculous Meningitis in Children.**—Gaujoux classifies these abnormal forms as the acute, apoplectic or fulminating type, those characterized by local symptoms depending on the seat of the tuberculous neuro-meningeal process, and those characterized by the preponderance of a single symptom, such as somnolency or delirium or a cluster of symptoms apparently with no causal connection, suggesting influenza, indigestion or typhoid, or combined with some intercurrent affection. He reviews the literature on these atypical forms, citing examples of each. In Hutinel's case the syndrome at first was that of bilateral sciatica, with numbness in the limbs followed by paralytic impotence. The temperature then began to go up and the child died with symptoms of basilar meningitis. In Gaujoux's own experience a typical case of the spinal form of tuberculous meningitis was accompanied by retention of urine and abolition of the knee-jerk and ankle clonus. The principal varieties in the third group are the somnolent, the delirious and the gastrointestinal forms. The somnolent form may be observed in children of all ages and may or may not be accompanied by headache, vomiting, constipation, spasm of the larynx, hemiplegia or diarrhea. In one case the somnolency was the only symptom for a month before general rigidity was observed which proved transient; but the somnolency continued and the child died with scarcely any further characteristic symptoms. The mental form may present merely delirium or hallucinations and the typhoid form may simulate the early stages of typhoid fever. In one such case a girl of 13 died in eight days after the onset of typhoid symptoms, malaise, the typhoid expression, coated tongue, distended abdomen, temperature 104 F. and pulse of 120, with bronchitic râles and diarrhea. Autopsy revealed entire absence of typhoid lesions but unmistakable signs of typical tuberculous meningitis.

Archives de Médecine des Enfants, Paris

March, XII, No. 3, pp. 161-240

44 Rôle of Human Contagion in Tuberculosis in Children. J. Comby.
45 Influence of Health of Cows on the Food Value of Their Milk. (Influence de l'état de santé des laitières sur la valeur du lait alimentaire.) M. Moussu.
46 Paravertebral Triangular Area of Dulness in Serofibrinous Pleurisy in Children. (Sur le signe de Grocco-Rauchfuss-Hamburger dans la pleurésie sero-fibrineuse chez l'enfant.) J. Brudzinski.

April, No. 4, pp. 241-320

47 *"Crest" Kyphosis. (Cyphose à crête épineuse.) M. Nageotte-Wilbouchewitch.

47. **"Crest" Kyphosis.**—Mme. Nageotte-Wilbouchewitch calls attention to a peculiarly obstinate form of kyphosis characterized by the prominence of three or four spinal processes standing out like a small crest, generally at the sixth and seventh dorsal vertebræ, but sometimes lower down. The spine is always stiffer than usual at this point and the protruding crest can not be reduced without suspension and extension; these succeed, although the curvature returns almost as soon as the restraint is removed. The protruding crest is the keystone of an extensive curvature involving a large part of the spine, and unless corrected in time, the deformity increases with age. This "crest" may be observed as early as the third or fifth year. The "crest kyphosis" is frequently encountered in the different members of a family. It is important to recognize it early in order to institute appropriate measures at once.

Bulletin de l'Académie de Médecine, Paris

March 23, LXXIII, No. 12, pp. 347-375

48 Operations on the Stomach. (Chirurgie de l'estomac.) A. Poncet, X. Delore and R. Leriche.
49 Familial Cystic Epitheliomas on Genitalia. M. E. Kirmisson.

March 30, No. 13, pp. 376-421

50 Aneurism of the Aorta Simulating Hypertrophy of the Heart. Boinet.
51 Pulsating Cancer of Sternum and Ribs Simulating Extrathoracic Aortic Aneurism. Id.

Revue de Gynécologie, Paris

XIII, No. 1, pp. 1-176. Last indexed March 20, p. 1000

52 Fetation in a Rudimentary Accessory Horn of the Uterus. (La grossesse dans la corne accessoire rudimentaire ou atrésique de l'utérus bicorne unicervical.) M. Cohn.
53 Angioma of the Spleen. (Angiome de la rate.) A. Martin.
54 *Spontaneous Perforation into the Bladder of Tuberculous Process in the Adnexa. (Ouverture spontanée dans la vessie des pyosalpinx tuberculeux.) H. Violet and A. Chalier.
55 Torsion of the Pedicle of Solid Ovarian Tumors. M. Guibé.

54. **Spontaneous Opening into Bladder of Tuberculous Processes in the Adnexa.**—In Gras' compilation of 85 cases of pus in the pelvis finding spontaneously an outlet through the bladder, none was of tuberculous origin, and Violet and Chalier can find no record of such a case in the literature. They have encountered three cases which they report in detail. The women were 27, 32, and 48 years old, and only direct inspection of the parts removed revealed the tuberculous nature of the affection in the adnexa. The perforation into the bladder did not cause acute symptoms; the presence of pus in the urine was accidentally discovered. Pressure from without on the pus pocket caused more pus to accumulate in the bladder in one case, but the opening into the bladder was not discovered before the operation on the adnexa. There were no evidences of cystitis. The symptoms were those of ordinary salpingitis. Treatment in each case was by total abdominal hysterectomy with drainage through the vagina, the abdominal wound closed completely. The bladder perforation was so small in two cases that it was left to heal spontaneously; in the other, the area of bladder wall involved was excised and sutured. The patients are in good health to date, from one to nearly four years since operation.

Revue de Médecine, Paris

March, XXIX, No. 3, pp. 161-256

56 Physical Development in General Paralysis. R. Mignot.
57 *Psychic Disturbances in Affections of the Hypophysis. (Troubles psychiques dans les syndromes hypophysaires.) M. Laignel-Lavastine. Id. of Male Genital Organs. (Id. dans les syndromes génitaux males.) Id.
58 Local Adiposis After Experimental Lesions of the Sciatic Nerve. Rôle of Lymph Glands. L. Lortat-Jacob and G. Vitry.
59 *Hemiplegia from Cerebral Arteritis in Inherited Syphilis. P. Savy.

57. **Mental Disturbances in Affections of the Hypophysis and Male Genital Organs.**—Lavastine discusses the mental condition with giant growth and acromegaly and with insufficiency of the hypophysis, the evidence of defective or perverted functioning of the hypophysis being sustained in these cases by surgical findings and by the favorable results from organo-

therapy with hypophysis extract. The psychic disturbances are of the elementary form, as a rule, but he adds that the hypophysis may be responsible for even the more complex psychoses in some cases.

Psychic disturbances are comparatively frequent in affections of the male genital organs. Besides those connected with the loss of the functioning of the testicles, or their defective development, malformations or disturbances in the genitourinary apparatus are liable to entail depression, etc. The psychic reaction may range from simple apprehension to obsessions and hypochondriac delirium. These mental disturbances are most marked in gonorrheics, in whom the mental confusion, stupor and hallucinations may be pronounced. Infantile conditions in the genital organs may be paralleled by the psychoclinical syndrome of childishness in the mental makeup. The trouble is due to arrested development, free from evidences of toxic disturbances, thus differing decidedly from the disturbances resulting from ovarian insufficiency. On the other hand, proof is accumulating that certain mental disturbances may sometimes be the result of defective or perverted functioning of the prostate. Among the arguments that sustain this view are the experimental demonstration of the toxicity and blood-pressure-raising properties of the extract of the prostate from genitally active animals, the frequency of suicide after prostatectomy—three cases are on record—and the prevalence of neurasthenia among men with prostatitis—Drobny found pronounced neurasthenia in 162 out of 168 patients with a gonorrheal prostatitis, and 93 per cent. recovered from the neurasthenia as normal conditions were restored in the prostate. In contrast with these findings he encountered only 41 neurasthenics in 605 patients with chronic urethritis without involvement of the prostate.

59. **Hemiplegia from Cerebral Arteritis in Inherited Syphilis.**—Savy reviews the history of this subject and gives full summaries of 27 cases in which inherited syphilis manifested itself by hemiplegia generally overshadowed by other pathologic nervous manifestations and accompanied by complex anatomic lesions. In certain cases, mostly in infants, the hemiplegia comes on abruptly and subsides under the influence of specific treatment of the inherited syphilitic taint. A little impotence and atrophy may persist after the hemiplegia has subsided, or the condition may progress toward infantile spastic paralysis. The facts observed in infants and children are the same as in the syphilitic hemiplegia of adults; both are transient and both result from the specific arteritis in the brain with ischemia and possibly consecutive softening in the domain of the obliterated artery. It is a wise course to suspect a syphilitic origin in every case of hemiplegia coming on suddenly in an infant without appreciable cause, even when no signs of a syphilitic taint can be discovered. It is probable that infantile spastic paralysis is traceable to syphilis in many more cases than generally recognized.

Presse Médicale, Paris

March 31, XVII, No 26, pp 225-232

60 Infections and Suppurations of the Pancreas J L Faure
April 3, No 27, pp 233-248
61 Mechanism of Death in Ileus (Mécanisme de la mort dans l occlusion intestinale) M Guibé
62 Appendicitis with Gall Bladder Syndrome (Appendice retro cæcal et syndrome cholécystique) E Mériel
63 Clinical Examination of the Musculature of the Leg in Infantile Paralysis C Ducroquet
64 Mechanism of Triangular Area of Dulness in Pleurisy (Sur le triangle de Grocco) J de Barros
65 Technic of Direct Visual Inspection of Upper Air Passages Esophagus and Stomach (Endoscopie directe) F Munch

Semaine Médicale, Paris

April 7, XXIX, No 14, pp 157-168

66 *The Enteralgic Crises in Tabes M Loeper
67 *Method of Reconstructing the Anal Sphincter. (Un Nouveau procédé opératoire pour la reconstitution du sphincter anal) J Schoemaker.

66 **Intestinal Crises in Tabes.**—Loeper explains the tabetic enteralgia as a lightning crisis of the posterior roots which blend into the sympathetic system innervating the intestine. It may be simple enteralgia or there may be choleriform or enteritic crises, of all of which he cites examples and reviews the cases on record. He does not think that drugs to reduce hypertension answer the main indication, preferring morphin, belladonna and atropin on account of their action on the contraction and secretion of the bowel. Surgical treatment is rarely to be considered as the intestinal crises are less tenacious than gastric crises and recurrences are less frequent. It is important to protect the patient from the injurious action of chilling and emotions. The diet does not seem to influence these crises directly, but preceding constipation or overloading of the intestines was noticed in all his cases.

67. **Operation for Incontinence of the Anus.**—Schoemaker has been successful in treating incontinence by separating the gluteus maximus muscle on each side and drawing a bunch of its fibers across to the corresponding muscle on the other side, suturing it to the ischium. One strip passes above and one below the anus in opposite directions, and the two are sutured together on each side of the anus. The technic is shown in an illustration; the result has been perfect continence, the patient being able to retain even an injection of glycerin. The anal sphincter had become paralyzed after several operations for prolapse of the rectum. In detaching the strips, which are 3 or 4 cm wide, he was careful not to molest the nerve.

Archiv für klinische Chirurgie, Berlin

LXXXVIII No 4, pp 903-1127 Last indexed April 10, p. 1215

68 Rare Forms of Atheroma W Zimmermann
69 *Direct Massage of the Heart in Apparent Death. (Ueber directe Massage des Herzens als Mittel zur Wiederbelebung) M v Cackovic
70 Hyperemic Treatment. (Ueber Behandlung mit Hyperämie nach Bier) P Assmy
71 Retroperitoneal Lymph Cysts and Cysts in the Pancreas R v Hippel
72 Complete Sterilization of Catgut by Hofmeisters' Technic (Ist das nach Hofmeister präparirte Catgut steril?) O Haist
73 Cystic Degeneration of Fungous Enlarged Papillæ of the Tongue (Ueber die cystische Degeneration der fungiformen Zungenpapillen) E Rehn
74 Anterior Subluxation of Wrist (Madelung'sche Handgelenksdeformität) Gaugele
75 *Possible Harm from Gymnastic Exercises in Treatment of Scoliosis (Kann Gymnastik in der Skoliosenbehandlung schädlich wirken?) A Schanz
76 *Physiologic Extirpation of Gasserian Ganglion J W. Rasumowsky
77 Firearm Wounds of Stomach with Retained Bullet (Ueber Schussverletzungen des Magens mit Steckenbleiben der Kugel) S Softeroff

69 **Direct Massage of the Heart in Apparent Death.**—Cackovic's attention was attracted to this subject by a case of what proved to be 'thymus death" under chloroform. The patient was a boy of 9 being operated on for harelip. When the operation was nearly concluded, the heart stopped beating and as a last resort the heart was exposed and massaged. Cackovic has found 45 cases on record in which this was done and devotes nearly seventy pages to analysis of the details and results. The massage succeeded in resuscitating the patients in 17 cases and in 9 of these the patient completely recovered, in the others the heart action failed again after working for a longer or shorter interval. In all but 5 cases the syncope occurred under an anesthetic; in the others from embolism in the pulmonary artery or as the result of attempted suicide by hanging, asphyxia from some laryngeal or tracheal affection or in a new-born infant. The best results were obtained with massage applied from below the diaphragm; it failed in every case with the transdiaphragmatic technic. The outcome was better the earlier after the syncope the massage was undertaken; the first five minutes gave the majority of successes while the massage failed constantly if ten minutes had elapsed after the onset of the syncope before the massage was commenced. The prospects are more favorable for direct massage of the heart when the syncope is of circulatory rather than of respiratory origin. When other means of resuscitation fail to elicit the slightest response, and especially in "white" syncope, direct massage is justified; the heart is grasped through the diaphragm, the hand being inserted through an incision above the umbilicus. The ventricles are squeezed rhythmically between the fingers or the heart is pushed against the front wall of the chest. The massage must be kept up for a long time supporting the spontaneous contractions as otherwise the heart may flag again. Some-

times fully fifteen minutes elapsed before the heart responded to the effect of the massage. Artificial respiration and traction of the tongue should be kept up with possibly tracheotomy or intubation to ensure a rhythmic supply of air or oxygen to the lungs; the pelvis should be raised and the abdomen compressed to aid in increasing the blood pressure by overcoming the paralysis of the vasomotors, supplemented by saline infusion and possibly also injection of adrenalin.

75. **Gymnastic Treatment of Scoliosis.**—Schanz says that several years' experience has convinced him that the improvement obtained by exercises in scoliosis is only apparent in fully 99 per cent. of the cases. Exercising is important as a means of improving the general health, but its action on the scoliosis is not so beneficial as is generally assumed, and it may be directly harmful. If the scoliosis is progressing or becoming aggravated, the exercises are directly injurious. Tapping along the spine will reveal painful points in these cases, and their discovery is a contraindication to gymnastics, as also with similar findings in simple insufficiency of the spine without curvature. Every effort should be made to cure this insufficiency of the spine or to reduce it before attempting exercise treatment, and even then the latter should be cautiously applied.

46. **"Physiologic Extirpation" of Gasserian Ganglion.**—Rasumowsky reports a case in which he successfully isolated the Gasserian ganglion by severing the root behind it, the so-called physiologic extirpation, without removal of the ganglion. The patient was a man of 38; two operations had been performed on the trigeminus for neuralgia, but with only transient results. The isolation of the Gasserian ganglion banished the pain at once and permanently. Besides severing the root back of the ganglion Rasumowsky resected a considerable extent of the second and third branches. His patient developed an eye affection, opacity of the cornea and synechia on that side, possibly from irritation from some foreign body in the eye which he was unable to feel. Otherwise he is free from disturbances.

Beiträge zur klinischen Chirurgie, Tübingen

March, LXII, No. 1, pp. 1-384

78 *Isolated Incarceration of Appendix in Hernias. (Ueber isolierte Brucheinklemmung des Wurmfortsatzes.) C. Schnitzer.
79 *Internal and External Supravesical Hernia. (Die intra-abdominalen Hernien der Foveae supravesicales. Die äussern Hernien der Foveae supravesicales.) A. Reich.
80 *Fracture of the Malleolus. Meissner.
81 Ramrod Shot Lengthwise through Hand and Forearm. (Eine seltene Schussverletzung mit dem Ladestock.) Id.
82 *[illegible] of the Heart in Goiter (Verhalten des Herzens [illegible] Müller and Schlayer.
83 [illegible] Metacarpal Bones. (Spiralbrüche der [illegible] Blauel.
84 Tabetic Arthropathy of Hip Joint. (Tabische Arthropathie des Hüftgelenks.) E. Schwarz.
85 *Traumatic Central Luxation of the Femur and its Importance in Obstetrics. (Die traumatische Luxatio centralis femoris.) K. Henschen.

78. **Isolated Incarceration of Appendix in Hernia.**—Schnitzer reviews 10 such cases encountered at the Tübingen surgical clinic and summarizes 22 others from the literature. He expresses surprise that the incarcerated appendix was reduced in so many cases without disturbances from it later; its removal seems urgently indicated even when it is apparently normal, as the results of the incarceration must lower its resisting power.

79. **Hernia in the Space Above the Bladder.**—Reich gives the particulars of 3 cases of intra-abdominal hernia in the supravesical space and reviews 9 other cases on record, with 4 others to some extent approximating them. This form of hernia has been classified as prevesical, supravesical and anterior retroperitoneal; the patients were all elderly men in the typical cases. The hernia is evidently the result of some congenital tendency; it causes no disturbance unless it becomes incarcerated, when vague and varying symptoms suggest subacute, sometimes remittent ileus. A distended loop of intestine may be seen above the symphysis, and there is also circumscribed pain, but no palpable tumor at this point. The most instructive finding is a protuberance in the bladder wall, revealed by cystoscopy. The main point in the diagnosis is to bear in mind the predisposition of the space above the bladder to this typical internal hernia. Operative treatment is imperative if no improvement is observed within twenty-four hours. He has not been able to find any record in German literature of external hernia in this region, but has compiled from outside 26 cases.

80. **Fracture of the Malleolus.**—Meissner remarks that the Roentgen technic and the legislation in regard to industrial accidents have made the treatment of fractures one of the most important questions of the day. The experiences at von Bruns' clinic at Tübingen with fracture of the malleolus are then reviewed, 151 recent cases and 60 of long standing, with illustrations of 38 forms of fracture in this region. The fracture entailed fatal fat embolism in 4 instances.

82. **The Heart in Goiter.**—Blauel discusses the behavior of the heart in patients with goiter, summarizing the details of 95 operative cases of goiter at Bruns' clinic at Tübingen. In 68 cases the after-history of the patients is included. The mechanical influence of the goiter on the heart was evident in 65 cases; examination later showed that the heart seldom returned to normal after removal of the mechanical influences. The heart had evidently felt the effect of the toxic action of the goiter to such an extent as to be unable to recuperate after its removal. The material reviewed confirms further the frequency of transition of a "thyrotoxic heart" into the complete syndrome of exophthalmic goiter. The blood picture may decide the clinical status of the toxic "goiter heart" better, perhaps, than the single symptoms.

85. **Central Dislocation of the Femur.**—Henschen's patient was a young woman five months pregnant when the head of the femur was driven into the pelvis by a fall from a wagon. He discusses this form of dislocation and especially its obstetric importance, having found 31 cases on record of its occurrence in pregnant women. To these he adds a list of 64 cases of simple and compound fracture of the floor of the acetabulum and 44 others of central luxation, summarizing the details of each and emphasizing the importance of refraining from bearing weight on the limb until after reduction and retention of the femur in its normal place. He warns expressly against attempting to reduce the head of the femur by manipulations through the rectum, although this is advisable to reduce the fragments of bone after the head has been restored to place. A plaster cast extending above the costal arch is necessary to retain the parts in the desired position, the hip being flexed and in adduction, with longitudinal extension, the technic for which is described in detail. The patient must stay in bed for two or three months; premature use of the limb will annul or render impossible good results from treatment.

Berliner klinische Wochenschrift

March 22, XLVI, No. 12, pp. 529-576

86 *Tumor in Spinal Cord Simulating Myelitis. (Rückenmarkstumor unter dem Bilde einer Myelitis verlaufend.) C. A. Ewald and R. Winckler.
87 *Bronzed Diabetes and Cirrhosis with Pigmentation. (Bronzediabetes und Pigmentcirrhose.) M. Simmonds.
88 Location of Pyloric Outlet. (Wo ist die Portio pylorica?) J. W. T. Lichtenbelt.
89 Importance of Shape of Zones of Anesthesia. (Bedeutung der Gestalt der beiden anästhesischen Zonen.) [illegible]
90 *[illegible] as Cause of Death in Infants. [illegible] fung als Todesursache im Säuglings-[illegible] d.
91 **Serodiagnosis in Congenital Syphilis.* (Die Wassermann'sche Reaktion bei kongenitaler Syphilis.) O. *Thomsen and* H. Boas.
92 Cotton Holder for Treating the Ear in Otitis. (Ohrpinzette [illegible] bei Ohreiterungen.) Sprenger.
93 *[illegible] (Verwendbarkeit des *Differen-*[illegible] r. Bock.) H. Bock.

86. **Spinal Tumor Simulating Myelitis.**—In the case reported by Ewald and Winckler, the patient was a motorman of 27, previously healthy until paraplegia of the legs suddenly developed with enlargement of the spleen, suggesting an infectious myelitis, although there was no fever or tenderness of the spine. The patient died with symptoms of pneumonia in two months. The case resembles one described by Nonne; in both autopsy revealed a tumor compressing the spinal cord, a sarcoma originating in the dura or epidural connective tissue

87. **Bronzed Diabetes and Cirrhosis with Pigmentation.**—Simmonds reports two cases of cirrhosis of the liver with glycosuria and pronounced hemochromatosis or bronzing. In two other cases the diabetes was associated with cirrhosis of the liver, but there was very little pigmentation. In three other cases cirrhosis of the liver was accompanied by such pronounced bronzing that the cases were typical of what the French call "pigment cirrhosis," but there were no indications of diabetes. In 16 similar cases compiled by Anschütz there were no traces of glycosuria in 6, and in 2 others on record glycosuria, present for some time, subsided for longer or shorter periods. Simmonds reasons from these data that in bronzed diabetes the triad of symptoms is the result of a single injurious influence, generally abuse of alcohol. The same injurious influence is responsible for the cirrhosis of the liver, the pigmentation and the changes in the pancreas with the resulting diabetes.

90. **Habitual Constipation as Cause of Death in Infants.**—Glaserfeld ascribes the constipation in the case described to a congenital physiologic anomaly in the wall of the large intestine although anatomically it seemed quite normal. He does not venture to decide whether weakness in the intestinal musculature or sluggish innervation is responsible for the trouble. The constipation had existed from birth and proved fatal within six months. The case teaches the importance of energetic measures to combat constipation in infants, although in these severe cases the outlook is not promising.

91. Abstracted in The Journal, April 3, page 1152.

93. **Differentiating Stethoscope.**—The stethoscope described by Bock allows the strength of the different sounds to be estimated and he describes a number of important points which may be learned with it, supplementing the findings by other methods and revealing aortic insufficiency, myocarditis, etc., and discriminating between true and false gallop rhythm. He says that the percussion findings with this stethoscope are more precise than with orthodiagraphy even when the heart is entirely covered by the lungs. Enlarged bronchial glands are readily diagnosed and pleuritic effusions outlined. The principle on which the stethoscope is based is the muffling of the sound to the limit of audibility—the amount of muffling required to render the different notes inaudible is the measure of their strength.

Deutsches Archiv für klinische Medizin, Leipsic

XCV, Nos. 5-6. Last indexed March 27, p. 1070

94 Case of Acanthosis nigricans. H. Pribram.
95 Transformation of Nitrogen in Lead Poisoning. (Stickstoffumsatz bei der Bleivergiftung.) L. Preti.
96 *Importance of Higher Temperature for Production of Antibodies. (Bedeutung der Temperatursteigerung für die Antikörperproduktion.) H. Lüdke.
97 Experimental Research on Percussion of the Thorax. (Zur Lehre von der Perkussion der Brustorgane.) F. Moritz and W. Röhl.
98 Elimination of Ammonia by the Mouth in Uremia. (Ueber Ammoniakausscheidung aus dem Munde von Urämikern.) Tiedemann and Keller.
99 Artificial Plethora and the Work of the Heart. (Künstliche Plethora und Herzarbeit.) R. Hess.
100 Relations betw[illegible] Acid, Total Acidity, Pepsin and [illegible] (Verhältnis von freier Salzsäure, [illegible] und gelöstem Stickstoff.) C. Rose.
101 Comparative Research with the Salomon Test and the Grafe-Röhmer Hemolysin Method for Testing the Functioning of the Stomach. (Vergleichend diagnostische Untersuchungen bei Magenkrankheiten.) Id.
102 Head Apparatus for Tests of Respiratory Interchanges, Etc. (Ein Kopfrespirationsapparat.) E. Grafe.
103 Gaseous Interchanges in Advanced Affections of the Lungs and Circulatory Organs. (Gaswechseluntersuchungen bei fortgeschrittenen Erkrankungen der Lungen und der Zirkulationsorgane.) Id.
104 Acute Benign Exfoliating Dermatitis. von Criegern.
105 Dry Residue and Behavior of Blood on Intake of Water by the Digestive Tract. (Experimentelle Untersuchungen über die Bestimmung der Trockenrückstande des Blutes und das Verhalten des Blutes bei Wasserzufuhr durch den Verdauungskanal.) A. Plehn. Id. R. Chiarolanza.

96. **Influence of Higher Temperature on Production of Antibodies.**—Lüdke reports that increased production of antibodies always accompanied the raising of the body temperature in his experiments, no matter whether the temperature was raised by heat externally applied, by stimulation of the heat center or by injection of chemicals which increase the temperature. The higher temperature had the constant effect of stimulating, promoting and increasing the production of antibodies, and if this production had died down it aroused it again to a slight extent. It is still a question whether the increased temperature is directly the cause of the increased production of antibodies or whether the benefit is by the intermediation of the stimulation of the oxidations by the increased warmth. The theory seems plausible that the increased breaking down of albumin in febrile states allows increased production of the antibodies, that is, of the side chains which have the effectual specific action. The assumption seems logical that the fever in infections is a salutary process if the conclusions of experimental research may be applied to man. The mere increase in the amount of antibodies is not necessarily salutary unless there is increased power of combination between the antigen and the produced antibody. The beneficial effects of hot baths and sweating procedures may possibly be due to an increased production of the protecting substances under their influence. His experiments on animals confirm this assumption, as also his tests on himself, showing always increased amounts of agglutinins in the blood serum after hot baths. The normal temperature rose by one degree C. after ten minutes in a bath at 40 C., and it rose to 35 or 40 C. (104 F.) in a ten-minute bath at 45 C. (113 F.).

Deutsche medizinische Wochenschrift, Berlin

April 1, XXXV, No. 13, pp. 561-608

106 *Forceps Deliveries. (Ueber Indikation und Technik der Zange.) H. Sellheim.
107 Tests of Antityphoid Serum. (Prüfung des Meyer-Bergellschen Typhusserums.) W. Hoffmann.
108 Reciprocal Agglutination of Typhoid and Paratyphoid B. Bacilli. J. W. Schultz.
109 Sources of Error and Extent of Error in Opsonin Tests. (Fehlergrösse und die Fehlerquellen im Opsoninversuch.) W. Busse.
110 Origin and Importance of Antitrypsin, especially in Cancer. (Entstehung und klinische Bedeutung des Antitrypsins, insbesondere bei Krebskranken.) A. Braunstein.
111 Action of Suprarenal Preparation on Frogs' Eyes. (Wirkung von Adrenin auf die Froschpupille.) S. J. Meltzer.
112 Simple Method for Determination of Adrenalin in Suprarenal Tissue. (Zur Bestimmung des Adrenalins im Nebennierengewebe.) G. Comessatti.
113 *Experiences with Prostatectomy. A. Cahn.
114 Radiometer. (Ein neuer Radiograph.) P. Lepper.

106. **Indications and Technic for Use of Forceps in Obstetrics.**—Sellheim concludes by emphasizing that the forceps may prove very useful and do no harm if the birth has progressed far enough so that no more force is required than in the natural process of expulsion. When greater force is necessary to overcome the resistance of the soft parts, it is at the expense of the mother, while if the resistance is from the bones, both mother and child suffer. Forcible measures are therefore contraindicated when the necessary maneuvers are liable to prove more dangerous than extraperitoneal Cesarean section.

113. **Prostatectomy.**—Cahn states that microscopic examination of the enlarged prostate after its removal by Israel in forty cases invariably revealed new growth starting in the epithelium of the gland—a papillary adenoma. In one case transition into a carcinoma was manifest. These findings suggest that hypertrophy of the prostate must be regarded as a true epithelial new growth, with nothing in common with inflammatory changes. Six of the forty patients succumbed soon after the operation, one to anuria and uremia the second day, one to diabetic coma eleven days afterward, two to embolism in the pulmonary artery, and one to postoperative pneumonia. The sixth died on the third day from peritonitis, and autopsy disclosed a small patch of gangrene in the peritoneum. The other thirty-four patients were completely cured by the operation, except that there is incontinence in two cases.

Fortschritte der Medizin, Leipsic

March 20, XXVII, No. 8, pp. 305-336

115 *Paraffin in Treatment of Umbilical Hernia. (Paraffinbehandlung der Nabelbrüche.) Burckhardt.

115. **Paraffin in Treatment of Umbilical Hernia.**—Burckhardt thinks that the anatomic conditions offer peculiar advantages for the use of paraffin in treatment of umbilical

hernias. After painstaking disinfection of the field of operation and of the hands, he lifts up the hernial sac with the left hand. The contents slide back and the tip of the syringe needle is inserted in the sac with the right hand. About 3 or 4 c.c. of paraffin, heated to 65 C. (149 F.), are injected, and the left hand releases the hernia so that it spreads out again to its original size. Ethyl chlorid is then sprayed for half a minute after withdrawal of the needle. The spot is then covered with a flat pad of medicated gauze fastened with adhesive plaster, and a strip of adhesive plaster around the abdomen completes the dressing. The injected paraffin thus spreads out over the hernia like a cap and hardens under the anesthetic, forming a broad plate extending on all sides beyond the area of the hernia, holding back the intestines and by the irritation induced causing production of adhesions. The method is applicable only to hernia not larger than 1 cm. in diameter; if larger than this several sittings are required. If too much paraffin is injected the result is cumbersome and disfiguring. The most important point in the technic is to use only hard paraffin, with a melting point at 54 C. (159 F.). He has thus treated a number of children under 12 during the last four years, and the prothesis has persisted unmodified except for the ingrowing of connective tissue into the paraffin. The procedure requires only a minute, and he has heard no complaints from any one except at the moment the needle is first introduced.

Medizinische Klinik, Berlin

March 28, V, No. 13, pp. 457-490

116 *Pathogenesis and Therapeutics of Diarrhea. (Ueber Durchfall.) A. Schmidt.
117 Height and Weight in Determination of Condition of Nourishment. (Brauchbarkeit der "proportionellen" Körperlänge als Massstab für die Berechnung des Körpergewichts erwachsener Menschen bei normalem Ernährungszustand.) G. Oeder.
118 *Gastric Cancer. (Zur Diagnostik und Symptomatologie des Magenkarzinoms.) R. Latzel.
119 Symptoms and Diagnosis of Diverticulum in the Esophagus. S. Isaac.
120 Hemophilia and Accidents. (Hämophilie und Unfall.) W. Pullmann.
121 Retention of Consciousness under Large Amounts of Chloroform, Etc. (Ausbleiben der Wirkung auf das Bewusstsein bei ungewöhnlich grossen Mengen von Narkoseflüssigkeit.) H. Cramer.
122 Adsorption in Solutions. (Der heutige Stand der Lehre von der Adsorption in Lösungen.) L. Michaelis.
123 Vegetarian Diet in Health. (Die vegetarische Lebensweise bei Gesunden.) H. Determann.

116. **Diarrhea.**—Schmidt thinks that in many cases diarrhea is the result of abnormal secretion in the intestine of a fluid which putrefies easily. He has found hydrogen dioxid the most efficient intestinal disinfectant and the most harmless. Pure agar-agar takes up from 10 to 12 per cent. hydrogen dioxid and yields it up very slowly, so that this combination supplies nascent oxygen to the intestine.

118. **Gastric Cancer.**—Latzel states that there is no other affection which so frequently presents symptoms and course entirely opposite to the teachings of the text-books, and cites numerous cases to illustrate his assertion. In some cases the patients gained in weight; in others the palpable cancer was scarcely painful even on pressure. Colic and peristalsis are liable to be more pronounced with benign than with malignant disease, as the muscle is more atrophied with the latter.

Münchener medizinische Wochenschrift

March 30, LVI, No. 13, pp. 641-696

124 *Development of Coxa Vara *after Reduction of Congenital* Dislocation of Hip Joint. (Ueber Coxa vara-Bildung nach der Reposition der angeborenen Hüftverrenkung.) Joachimsthal.
125 *Bismuth Poisoning and a Non-Toxic Substitute for Bismuth in Roentgen-ray Work. (Ueber Wismutvergiftung.) L. Lewin.
126 Further Research on Chlamydozoa. S. v. Prowazek and H. B. Aragao.
127 Pains in Knee with Affections of Hip Joint. (Ueber Knieschmerzen bei Hüfterkrankungen.) H. Heineke.
128 *Trauma of Skull and Injury of Brain. (Schädeltrauma *und* Gehirnverletzung.) Weyert.
129 Test for Glycuronic Acid. (Ueber den Glykuronsäurenachweis durch die B. Tollensche Reaktion mit Naphthoresorzin und Salzsäure.) C. Tollens.
130 Chronic Dilatation of Large Intestine in the Elderly. (Chronische Dilatation des Dickdarms im höheren Alter.) M. Versé.
131 Anesthetization of the Tympanum. (Zur Anästhesierung des Trommelfells und der Paukenhöhle.) G. Tiefenthal.
132 Sunlight Treatment of Laryngeal Tuberculosis. (Zur Technik der Sonnenlichtbehandlung der Kehlkopftuberkulose.) H. Kraus.
133 Recording of Lung Findings. (Die graphische Darstellung des Lungenbefundes.) O. Pischinger.
134 Standardization of Digitalis. (Wie können die Digitalisblätter mit gleichbleibendem Wert in das Arzneibuch eingeführt werden?) Focke.

124. **Coxa Vara After Reduction of Congenital Dislocation of Hip Joint.**—Joachimstal describes three cases in which coxa vara developed after successful reduction of congenital dislocation. The Roentgen findings and the progressive character of the disturbance seem to show a process of local softening in the atrophic and thus less resistant bone. As these softening processes are favored by long immobilization, this tardy complication is another argument for shortening the period of immobilization after correction of congenital dislocation of the hip joint. Roentgen examination will reveal the incipient disturbance, *he says, and energetic measures should be instituted* at once. With massage and exercises in abduction and extension he was able to induce marked improvement in the one case in which the softening of the neck of the femur had induced functional disturbance. The patients were between 2 and 6 years old when treatment was begun.

125. **Efficient Substitute for Bismuth in Roentgen-Ray Work.**—Lewin insists that the symptoms of bismuth intoxication are due to the bismuth itself, not to production of nitrites, consequently it is useless to seek for other salts of bismuth to replace the subnitrate in Roentgen work. After long research he has found that magnetic oxid of iron—*Magneteisenstein*—is peculiarly adapted for the purpose, as it is non-toxic, while it arrests the rays and is insoluble in the stomach and intestines. Roentgen pictures taken with this oxid far surpass in delicacy of outines those he has ever obtained with bismuth.

128. **Cranial Trauma and Injury of the Brain.**—Weyert discusses the symptoms in three cases of injury of the brain, remarking that a sound brain may bear a severe trauma to the skull without injury, but if the resistive vitality of the brain is lowered for any reason it reacts with serious consequences to even very slight trauma. He is convinced that many cases of so-called traumatic neurosis are in reality the result of unsuspected organic injury of the brain. Patients with cranial trauma should be referred to psychiatrists earlier and more often than is generally the case.

Books Received

All books received are acknowledged in this column and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. A selection will be made for review in the interests of our readers and as space permits.

Pure Milk and the Public Health. A Manual of Milk and Dairy Inspection. By Archibald Robinson Ward, B.S.A., D.V.M., Assistant Professor of Bacteriology and Director of the State Hygienic Laboratory, University of California, Berkeley, Cal. With Two Chapters by Myer Edward Jaffa, M.S., Professor of Nutrition and Director of the State Food and Drug Laboratory, University of California. Cloth. Pp. 218, with illustrations. Price $2. Ithaca, N. Y.: Taylor & Carpenter, 1909.

Durability and Economy in Papers for Permanent Records. Report No. 89, U. S. Dept. Agric. Submitted by H. W. Wiley, Chief Bureau of Chemistry, and C. Hart [illegible] Bureau of Biological Survey, Committee on Pape[illegible] Use. Including Paper Specifications, by F. [illegible] eather and Paper Laboratory, Bureau of Chemistry. Paper. Pp. 51. Washington: Government Printing Office, 1909.

The Law in General Medical Practice. *By Stanley B. Atkinson*, M.A., M.B., B.Sc., Justice of the Peace for the County of London. Cloth. Pp. 239. Price $3. [Note: Previous announcement in this column that price was $1.50 was not correct.] New York: Oxford University Press, 1908.

A Guide to the Twelve Tissue Remedies of Biochemistry. The Cell-Salts, Biochemic or Schuessler Remedies. By E. P. Anshutz. Cloth. Pp. 91. Price, 75 cts. Philadelphia: Boericke & Tafel, 1909.

Proceedings of the Twenty-Third Annual Meeting of the Conference of State and Provincial Boards of Health of North America. Washington, D. C., Sept. 25-26, 1908. Cloth. Pp. 207.

The Faith and Works of Christian Science. By the Author of "Confessio Medici." Cloth. Pp. 225. Price $1.25. New York: The Macmillan Co., 1909.

Transactions of the Seventeenth Annual Meeting of the Hawaiian Territorial Medical Society, Held in Honolulu, Nov. 21-23, 1908. Paper. Pp. 122.

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Original Articles

CANCER OF THE BREAST *

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The treatment of cancer of the breast still demands the most thorough excision possible. The use, in operable cases, of *x*-rays, toxins, yeasts and ferments, radium and similar methods, is, in my opinion, wholly unjustifiable. There is little if any encouragement that methods will soon be found of sufficient merit to replace the knife. Resort to other treatment than excision takes away the only reasonable chance of permanent cure. I see an appalling number of cases of hopeless cancer, which have become inoperable under methods with some scientific basis, to be sure, but as useless as osteopathy or Christian Science. There is certainly a sufficiently wide field for the trial of non-operative methods without taking the easily operable cases. The layman, however, does not know this: many physicians do not. Between the hopeful layman and the optimistic physician, the period favorable to operation is too often passed, and the unfortunate patient comes to the surgeon too late.

Are these words too strong? Far from it. They are too weak. The injury done the sufferer from cancer by the optimistic reports of cures by such things, for example, as trypsin and amylopsin is inestimable. Moreover, the ridicule heaped on surgeons by certain lay journals, under the pretense of humor, whether in reference to appendicitis or other operations said to be performed for reasons other than for the patient's own good—cheap, ill-advised, and sinister attempts at wit—have resulted, I have no doubt, in thousands of those awful tragedies of hopelessness of which I personally have seen many.

The "fads" of an earnest and honorable profession are, in reality, its sincere desire to save humanity from an only too natural tendency to delay. The watchword of our profession of late years has been early operation, earlier operation, earliest possible operation, until perhaps the public is weary—as it often wearies of good works. But do we not see daily the evils of malignant disease in which the layman's reluctance to operation is fostered by ridicule and the attributing of unworthy motives?

My remarks are based on my own experience, which includes a large number of operations, and a still larger number of hopeless cases. An incomplete search through my records, since 1890, gives 1300 cases of breast tumor of all kinds in my own practice. There were 398 patients operated on for cancer.

The things that I am especially moved to say do not concern much the question of methods of operation, for we have gone as far as we can in thoroughness—in breadth and depth. The glaring need in connection with breast cancer is early recognition. The most important theme for discussion at the present time, therefore, is the diagnosis of breast tumors; the most conspicuous subject for investigation and study is the cause and nature of cancer. But the latter I do not intend here to discuss. I will confine my remarks to the diagnosis, prognosis, and indications for treatment.

My earliest operation consisted in removal of the breast by an elliptical incision extending from the insertion of the pectoralis major to the ensiform cartilage. I dissected free from fascia and fat the pectoralis major, the serratus magnus, the latissimus dorsi, and the subscapularis. The axillary structures were cleaned with the care of a dissecting-room preparation. No muscles were cut or removed unless they were visibly infected.

From year to year I made my dissection more and more thorough. I removed a greater area of skin and carried the dissection of the axilla higher and deeper.

In one case, in June, 1892, I first closed the gap by shifting the skin and opposite breast toward the denuded area. This method I have followed ever since. The breast is removed by not only as much skin as in the so-called tennis-racquet incision, but by even more, for it includes a triangular area between the incisions that meet at the ensiform cartilage. The posterior flap is dissected from the muscles far behind the posterior axillary border. All tissues are removed in one piece, until the fat at the axillary apex is exposed and removed. In thoroughness and detail I have become more and more painstaking, following not so much the trend of surgical practice, perhaps, as the teachings of my own experience, stimulated by early training in the dissecting room. I have, however, nothing new or original to offer. I make my acknowledgments to Halsted, Warren, Meyer, Mixter and a host of other surgeons, especially American surgeons, whose collective experience has done so much to make the surgical treatment of breast cancer effective.

The dissection, as I make it, begins as a broad skin removal. The deeper dissections are still wider and more effective. Of late years I have made the dissections of the veins, arteries, and nerves of the axilla particularly clean and dissecting-room-like, by the use of a curette to remove particles of loose fat.

The wound which results from this operation is always closable by skin: no grafts are necessary. A vast amount of skin can be removed by this method, with a comparatively small area to be covered in by grafts.

The time of this operation is brief. Rarely over thirty minutes: often less. The time depends wholly on the amount of bleeding.

The immediate results in all the cases I have been able to collect, are good. The mortality in all my cases is four. The total number of operations for cancer is (since 1890) 398.

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* Read before the New York Academy of Medicine, Jan. 19, 1908.

The results of operations for breast cancer seem to vary considerably. Certain things must be considered in putting forth statistics, and these things are essential for an approximately just comparison of methods and results.

I do not have as yet my end-results, but I have definite propositions to make for the estimation of end-result values.

So long as cases are grouped properly, end-results may be used properly. So long as they are not thus properly grouped, so long will results be inaccurately weighed. Cases must be judged at the time of operation as favorable, unfavorable, or hopeless, and so forth. Each of these headings permits greater accuracy of subdivision: very favorable or exceedingly favorable, favorable, not positively favorable, doubtfully favorable, For example, a case in which there is a small tumor in the center of a breast with but one or two small lymph nodes involved must be regarded as an early one and especially favorable for permanent cure. A small tumor with many and large axillary lymph nodes, but easily movable and thoroughly dissected, makes a favorable case. A tumor of no matter what size, so long as it can be removed by a wide margin of safety, presents, with trivial or moderate implication of axillary lymph nodes, a favorable outlook.

Cases in which there are infiltrations, whether into the skin or parts near the breast periphery, into axilla with close shaving of axillary vessels, present an unfavorable though perhaps not a hopeless outlook.

Wide infiltrations (the least tendency to *cuirasse* appearances), involvement of ribs or intercostal spaces; implications of axillary vessels; the breaking through of cancer from the lymph nodes into the axillary cellular spaces; make the outlook practically without hope, for in all such cases there must be presumably an incomplete operation.

Every operator of wide experience can not but realize these conditions. In many cases he can not tell beforehand what he is likely to find; in many, he can be reasonably sure. In estimating prognosis, as he must himself acquire the ability fairly to guage it, the surgeon must rely wholly on his own experience. I dare say the prognosis of no two men is exactly alike, but the general principles of prognosis must be about the same in all extensive experiences.

In presenting the practical side of a discussion of breast cancer, I am moved strongly to emphasize the importance of early diagnosis and its influence on the prognosis and the indications for treatment; for the good prognosis of even the most thorough operation is seriously compromised by delay in diagnosis.

The chief cause of delay lies in the patient herself—in her unwillingness, even with her fears strongly excited, to admit even to herself that serious trouble may be present and in her not unnatural reluctance to consult a physician. This prolific source of delay is increased by the lay press, by advertisements of cancer cures, and the like. A campaign directed to the public, such as is being conducted at the Harvard Medical School in its popular lectures, does much toward educating the laity to the importance of all tumors.

A second important cause is the too sure diagnosis of benignancy on the part of the physician of small experience in whom, I think, the wish is father of the thought. Hence the necessity of a campaign directed to the physician, and, for that matter, to the surgeon himself.

In insisting on the education of the family physician in the diagnosis of breast cancer, I can illustrate this necessity too well by the shortcomings of myself—more or less of an expert in cancer—to be afraid of offending the susceptibilities of the physician who, no matter how wide his practice, can not in a single disease like breast cancer ever hope to become an authority on diagnosis. While this manuscript was being prepared in a remote camp on Cape Cod, a native consulted me about himself. His case is typical, not only of cancer of the breast, but of the way in which its serious nature may be treated by an intelligent physician. The patient is a man of seventy-five, a farmer, of good family descent straight through eight generations from the Puritans. More than two years ago he noticed a small lump in the right breast. He thought little of it himself, but showed it to his dentist, a young man who was studying medicine. The dentist told him that it was probably nothing, but that he had better keep watch of it. Soon after this he showed it to the local physician, as he happened to meet him on the road. The physician, a man whom I know well, a man of wide experience and common sense, told him that it was a sort of cartilage tumor and would not amount to anything. As it grew larger and larger, the physician made the same reply—"but have it taken out if you want to." It went on nine months longer, and broke. Then the physician said that it ought to be taken out. I found extensive cancer of the right breast, with implication of the axillary nodes. I was unable to close the great skin gap except by grafting. The operation was done on May 13, 1908. There is now a nodule of recurrence in the skin at the sternal end of the scar, and one in the axilla.

Experiences like this are common. My record books are filled with cases of cancer discovered too late. While in many cases no educated person is responsible for the direful error, in the majority some practicing physician is responsible. The patients are told that they have nothing but a glandular enlargement, an obstructed milk duct, or slight thickening; a little harmless swelling—when they are harboring, in a very accessible organ, and one that may easily be thoroughly removed, the worst enemy of mankind.

But it is not the family physician only who makes such mistakes. I have made the fatal error of calling a malignant breast tumor benign, and I have done it, not once, but half a dozen times, and I have seen the evil results following a wrong diagnosis until I no longer take the responsibility of permitting delay when excision is so simple, so safe, and so effective—no longer, except under certain most unusual conditions of almost incontrovertible evidence.

The evils of wrong diagnosis need not be exemplified here, but the evils of a too-positive opinion do need emphasis, especially those of opinions which, if wrong, sacrifice health, or even life itself. The lethal effects of that opinion, for example, by which a necessary operation is withheld are infinitely more important than those which attend an opinion by which an unnecessary one is imposed. We should, of course, confess to our unnecessary operations; but without fear we should publish, that all may see, the tragedies that follow delayed necessary operations. But do we publish them? I fear that we do not.

Now, whatever may be the nature of cancer, its etiology, its treatment, what—after all—can compare in importance with its early detection? Whether parasitic or not; whether hereditary or not; whether caused by this, that, or the other thing, what gives the patient the best, if not the only chance? Is it not early diagnosis?

The diagnosis of breast tumors seems easy, certain, doubtful, difficult, or impossible, with the provision that in even the plainest case there may be error. Could the diagnosis be unmistakable, the treatment would be unmistakable; but there must always be the possibility of overlooking malignancy. The treatment is clear, if the diagnosis is clear. Discrimination between the case which needs operation and the one which does not is exceedingly liable to error, and it is a differentiation which no man can make without occasional mistake.

The only safe treatment of breast tumors of all kinds, at all ages, is excision; for excision is the only treatment which will obviate the awful tragedies of overlooked malignancy.

This rule, which in my experience and belief is applicable to all tumors, admits of certain exceptions. A consideration of these exceptions requires especial emphasis of the diagnosis of breast tumors.

I do not intend at this time to discuss the diagnosis of breast tumors in general, or of cancer in particular, but rather to emphasize those symptoms and signs which lead most frequently to error, and to estimate their weight.

It is not to be expected that we shall often see cases of neoplasm of the breast in which no tumor can be felt; but such cases do come to the surgeon, because of pain or discomfort. It is evident that the prognosis will be enormously bettered if we can make the diagnosis before the tumor is palpable. As the symptoms at this stage are only pain and discomfort, what weight should be given to them? As a predominating rule, pain is not present in cancer. The great majority of patients do not complain of pain in the least In the cases in which the patients do complain of pain, a tumor has usually been discovered. I have seen a few patients who complained of pain alone, in whom I have discovered no tumor whatsoever. Pain then as a diagnostic sign should have little weight; pain as an indication for operation should have only the weight of its own severity, and should justify operation, in the total absence of the breast signs, only for its own relief.

I have here laid down one of the rules by which I myself am guided. Has it exceptions? A few, I think. I give great weight to pain when I can eliminate positively the existence of tumor, when the breast is large, and when there is an indefinable something in it. I am strongly influenced when there is a marked family history of cancer, when a localized area is unduly tender, and always when the axillary lymph nodes are perceptible.

There is also, as a guiding influence, my experience in many cases, and my feeling of doubt and dread when, under a strong suspicion of malignancy, I do not advise operation. I once found an unmistakable nodule of cancer in a large breast in which, before operation, I could feel nothing, but which I removed on account of pain, contrary to my own opinion as to the necessity—urged to the performance by the family physician. To advise against operation in any breast case, especially in patients of cancer age, even if the only symptom is pain, has become, for some reason or other, chiefly I think distrust my own infallibility, so great a responsibility, so full of possibilities of disaster that I am more and more averse to taking it. And this distrust of my own powers of diagnosis increases with increasing experience, until I am forced to the position that no man's experience is adequate to justify the neglect of surgical exploration when the signs point, at the earliest stages, to a possible diagnosis of cancer.

The influence of heredity on a doubtful diagnosis should be great. In a questionable tumor, with no symptoms whatever, but with a family history of two or three cases of cancer, I would not exclude the possibility of beginning cancer on no matter how experienced a touch. Nor would I regard any discomfort in the breast of a woman with such a history except as a probable indication of beginning cancer, clear enough at least to demand exploration.

A word should be said as to the significance of tumors of both breasts. As a rule, cancer in both breasts, occurring independently, is extremely rare. Nevertheless, I have seen this often enough to mar somewhat the positiveness of a diagnosis of benignancy based on the presence of double breast tumors. When one breast has a tumor which seems benign, that benignancy is rendered more probable by a similar tumor in the other breast. Similarly, when a tumor has been removed from one breast, and proved benign, the later occurrence of a similar tumor in the other breast favors very strongly a similar benignancy.

But there should be no rule guiding the surgeon in such cases, unless it be the only safe one in connection with breast tumors—that of treating them all as malignant until they have been proved benign.

The various attributes of the tumor itself—size, shape, situation, mobility, hardness, tenderness—must be given that weight, and that weight only, which the experienced observer has, through many years, been able to estimate, basing his estimation on what he feels before operation, controlled by what he feels after excision; what he sees on gross section, and what the expert reports with his microscope. In this way, the candid and careful observer will be able to make deductions of extraordinary accuracy, from the feel alone of the tumor.

The examination of the axilla is prolific in important evidence for or against cancer. There is a strange variability in the extent of axillary involvement. Sometimes the axilla is filled with masses themselves conspicuously cancerous, when perhaps the breast itself will show so little perceptible involvement that the surgeon will feel obliged to review, or even to change his opinion of a breast's malignancy. At times, as I say, there is much in the axilla and little in the breast; at times there is much in the breast and little in the axilla. As a rule, the presence of perceptible axillary lymph nodes adds an evil significance. Even more serious is the presence of supraclavicular lymph nodes. Sometimes there will be infection of lymph nodes with enlargement, but the nodes themselves will be soft and imperceptible.

The diagnosis dependent on symptoms and signs thus far considered may in a few cases be so doubtful that the surgeon will hesitate somewhat in his opinion. For the same reasons, his prognosis will be doubtful; and, while he may favor in doubtful cases the rule of universal operation, there may be conditions which will forbid, except in the presence of certain malignancy.

In all cases, and particularly in those in which the indications for operations are clear, the surgeon must examine for remote metastases, lest he subject his patient to a useless operation. The weight to be given symptoms which may be caused by such far-away involvement as brain, liver, or spinal cord, is very great; but, great as it is, this weight must be convincing before a diagnosis of hopelessness is allowed to take away the patient's only chance.

Of all the metastases, the most malign are those of involvement of the cerebrospinal axis. I have seen many of these; and, though most of them are late, some, I have no doubt, were present at the time of operation. Any persistent cerebral or spinal symptom should excite the strongest apprehension.

This fact has recently been illustrated by the case of a young woman with an infiltrating mammary cancer that had been treated so long by osteopathy and Christian Science as to be locally almost inoperable. Spinal symptoms that were marked, though not to the neurologist absolutely significant, added enough to the contraindications to make operation unjustifiable.

But more frequently than anywhere else metastases in the abdomen lend their weight to a doubtful diagnosis. I have twice opened the abdomen in the case of doubtful abdominal tumors, without examining the breasts: in both cases there were extensive cancerous infiltrations, which were metastatic from the breasts, and for which breast cancer had never been suspected.

A persistent cough, without adequate signs in the lungs, always adds strength to the diagnosis, if it weakens the indications for operation.

With reference to the diagnosis by the use of the hollow punch, or the knife section, for the microscope, I believe that a tumor doubtful enough to justify this means of control should *per se* be immediately extirpated, for I am convinced that autoinfection is possible and probable, not only in breast cancer, but in all forms of malignancy.

I have seen a breast and axilla infected the whole length of the puncture with a Mixter punch, just as I have seen sarcoma implanted throughout a fresh area, even to the stitch-holes. I have seen not a few cases of widespread cancerous peritonitis from the fluid of a malignant ovarian cyst. I therefore now remove if possible the ovarian tumor without tapping it.

The prognosis in cancer unoperated on is, of course, as bad as it can be. But the prognosis is measured in accordance with the accuracy of the diagnosis. Every case in which there is the slightest doubt has, therefore, hope in the possibilities of error—hope in human frailty. This hope, when an experienced surgeon makes a diagnosis of cancer, is small, to be sure, but there is still a hope.

Three illustrative cases have recently come to my attention.

In the first there seemed to me an infiltrating cancer of the right breast so advanced in axillary metastasis that I fully expected to find adequate removal impossible and early recurrence certain. The operator, a man of small experience, found a simple fibroma. I have often wondered whether, had I operated in this case, I should not have discovered the nature of the growth in time to save the breast.

In a second case in which I was certain of an infiltrating cancer of the right breast I found, after the most radical operation, a tumor containing pus, without a sign, gross or microscopic, of cancer or other malignancy. I had the comfort, in the case of this woman of 65 years, of a primary union and of a safe removal of malignancy, were the laboratory search in any way inadequate or erroneous.

In a third patient, after removal of the breast, I discovered that the main tumor, which I supposed secondary to an epithelioma of the nipple, was a cyst.

I have seen too many errors of diagnosis to be absolutely sure of any case that presents features in more or less concealment. A scirrhous cancer with ulceration is about as certain as anything can be in diagnosis, is it not? And no man could easily mistake it? But it is not four weeks since I made that diagnosis in a superficial ulcer above the subclavian triangle, with a secondary mass extending into the anterior mediastinum. It was so clear a case of cancer that I had no doubt at all of my opinion. Had the situation been the breast in this patient, an old lady, I do not believe that the diagnosis would have had, in any surgeon's mind, the slightest doubt. Even in an unusual place for primary cancer, there was, as I say, no doubt in my mind or in that of any member of my private staff. I admit that I was dumbfounded and delighted, after a very difficult and exciting removal, to receive Dr. Whitney's report of tuberculosis. The operation was adequate for complete and immediate cure of tuberculosis, and a good attempt for cure of cancer, so that I had no especial regret, but it emphasized to myself my own fallibility in an apparently plain diagnosis of cancer. Even in hopeless breast tumors in which the diagnosis seems sure, we must not forget the hope that lies in error and in the confounding of benign and malignant cases. And the liability increases with the absence of signs visible to the eye. Important as is the feel alone in the diagnosis of deeply placed tumors, that diagnosis is made most certain by the visible dimpling of the skin; the discoloration of overlying tissues; the infiltrating and thickened masses perhaps too little affected to give signs to the touch.

But the prognosis of real cancer, without operation, is, of course, as bad as that of any disease can be. I do not accept any cases of cure under other than thorough excision unless the diagnosis rests on a history, a gross examination, and on microscopic findings that make the diagnosis humanly impregnable. Indeed, one case of mammary cancer cured by *x*-rays, radium, toxins, trypsin, amylopsin, or any method that does not remove utterly the disease, I should regard as one of the most hopeful signs of an ultimate nonoperative and successful treatment.

The prognosis under the most radical methods of operating depends on the operative findings. The experienced operator can tell the cases in which the prognosis is almost surely bad as to recurrence. There are cases in which the operation seems adequate for good hope, but in which the surgeon's instinct makes the outlook decidedly bad. Perhaps his description in words would mean a favorable outlook, but he finds an indescribable something of sinister influence.

The statistics on which prognosis depends are, in my judgment, of little service when they are made up of a large number of cases from many surgeons. The statistics that are worth while in the formation of his own prognosis are those of his own experience. I have, for example, a very definite idea of the prognosis of the breast cancer as diagnosticated and operated on by myself, but a very indefinite one of the same under another surgeon. For example, in my operative cases, I know those in which there is no hope of ultimate cure, and I know those in which, from the operative standpoint, there is every hope of permanent success. When there is a mass of conglomerated lymph nodes in the axilla, even if there are no perceptible ones at the first rib, I know that my dissection, *no matter* how painstaking, is probably too late. When I find but one or two nodes in the center of a mass of axillary fat, easily separated on all sides by an extensive and clean dissection, I know the case belongs to a group in which the outlook is bright, in which the per cent. of cures is higher than 25 or 30 per cent. or even 50 per cent.

The prognosis in cases that are recognized early enough to permit the widest removal, is one thing; that in cases in which thorough dissection is doubtful, is another. When the margin of safety is narrow, as when the glands are dissected from the axillary vessels or nerves; or when the least trace of disease is so situated that it can not be freely and widely removed, then I know that there is no hope of permanent cure.

We probably err most frequently in giving a too favorable prognosis, but occasionally we give a prognosis that is worse than the facts justify. At times lymph nodes that we think cancerous are really inflammatory. Cancer is bad enough, but we must seek every favorable sign, and especially that of human fallibility.

The period of immunity after operation.—Is there any good reason for the three-year limit? I do not think there is any limit of years after which a patient may be said to be permanently cured; for I have seen local recurrences many years after the three-year limit—recurrences of such a nature as to show a direct connection between the original disease and the secondary growth. A sternal or rib tumor, appearing five or ten years after the removal of the breast, would seem to me clearly secondary to the breast tumor. Cancer of the remaining breast. several years after removal of the other, without any recurrence on the side first affected, would suggest very strongly, not a metastasis, but a really new and individual focus—just as when each breast contains a small, movable tumor in its center, we regard them as separate and individual foci. The really remote metastases—in time and situation—are those which affect the spine. I have seen a few examples.

The prognosis as to recurrence is influenced, in favorable cases especially, by the thoroughness of extirpation. The advanced cases, particularly the ones in the borderline of the inoperable, have really very little prospect of cure, but that depends entirly on the extent and thoroughness of extirpation. Except for pain and annoying discharges, the prognosis in advanced cases of mammary cancer is such as to forbid operation.

In considering the immediate prognosis, some of us may be unduly influenced by the mortality of preantiseptic days. I look on the most extensive operation for breast cancer—in patients of good strength, good hearts, lungs, and kidneys—as practically free from mortality.

From the views already expressed, the chief indication for operation is the presence of a tumor, whether in the male or the female breast. I have always felt the need of conservatism in advising surgical operations, and have from time to time emphasized the necessity of restraining one's hand from operating in hopeless cases. But what is the one great lesson that we learn with increasing experience? What the one great blot on surgical practice? It is failure through unjustifiable delay. That lesson we can not seem to learn.

We have learned that delay in the extirpation of breast tumors may be attended by appalling consequences. I have learned that no man can with a placid mind advise delay in the treatment of a doubtful breast tumor. Sooner or later he will be put on the defensive; or worse, he will have to answer to an implacable if just conscience why he permitted a breast tumor to develop into hopelessness when a trivial and safe operation was possible. In considering what to advise in the case of a woman—or of a man, for that matter—what to do with even the most trivial breast tumor—the burden of proof that the disease is *not malignant* is on those who advise palliation.

We who say that all breast tumors should be explored present our exceptions. Those who say that only malignant tumors are to be excised must prove beyond reasonable doubt the effectiveness of their diagnostic methods.

For me, the only exceptions to the rule of universal exploration are those cases of multiple tumors affecting both breasts, which are so unmistakably retention cysts. Another exception is the breast tumor which appears after the removal of a benign growth or a simple cyst. Still another is the appearance in the other breast of a tumor like a benign one that has been removed from the first.

But, barring such *contraindications* as are found in heart, lungs kidneys, and other organs, and in certain constitutional diseases, a better rule—and one which I can not with contented conscience ever break—is that of removing every tumor—of whatever nature—at any age. Thus only can we avoid those errors, which, however infrequent, are nevertheless, when they do occur, so appalling and indefensible.

[TWO OTHER PAPERS IN THIS SYMPOSIUM ON CANCER OF THE BREAST, BY DRS. F. S. DENNIS, NEW YORK, AND W. L. RODMAN, PHILADELPHIA, WILL APPEAR NEXT WEEK.]

PHARMACOLOGIC FETISHISMS

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The last few years have witnessed a strong and certainly a healthy growth in the spirit of iconoclasm in medical thought. Babinski in neurology,[1] Henri in pathology,[2] and Cushny[3] in pharmacology are notable examples of this spirit. Babinski's efforts have largely succeeded in tearing down many notions with respect to hysteria which for a generation were regarded with almost religious veneration by the apostles of Charcot. Henri has attacked the fallacious ideas from which the pragmatic German school derived its sanction for its top-heavy theories regarding blood pathology and immunity. Finally Cushny in pharmacology has thrown out the fetishes with which the temple of therapeutics was so overcrowded, and allowed room for a healthier devotion to be paid to a rational study of the physiologic action of drugs.

If it were not for these periodical intellectual reformations, the mind of the average physician would be little better equipped than that of his superstitious and empirical prototype of a thousand years ago. In pharmacology the *movement* appeared none too soon. Like many other reformations, it began many years before it was recognized. A whole generation ago Buchheim and Schmiedeberg began the cultivation of rational pharmacodynamics. They sought to put drug therapeutics, then in a chaotic state, on a scientific basis, and while they did not succeed in solving all of the problems with which they were confronted, they conferred on the medical profession an inestimable blessing by showing the true way by which the application of drugs to disease could be put on a rational plan.

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[1] Rev. neurol., Nov. 15, 1901, ix, 1074; Confer. Société de l'internat., Doin Paris, 1905 [1906].
[2] Sem. méd., 1907, p. 424.
[3] Pharmacology, Philadelphia 1900.

Rich results have already come from these efforts, but it is nevertheless truly surprising that even at the present day many medical men have not seen the light or joined the great propaganda for reform. It is not surprising to see the lay mind bewildered by the glittering shams of charlatanism, but it is difficult to understand how the shallow mockeries of pharmaceutical quackery can gain hold on the professional mind. It is by remedying to a large extent, the tendency to such puerile gullibility on the part of the medical man and by stimulating a healthy degree of scepticism to pharmacotherapy that Cushny has earned the everlasting gratitude of the physician.

The great movement for reform in drug therapy has come to stay until its end is accomplished, and the Council on Pharmacy and Chemistry of the American Medical Association,[4] comprising as it does some of the best pharmacologic talent in the United States and even abroad, will continue its beneficent work. But each physician must clear his own intellectual atmosphere, and it is because this attempt at mental autodetergence has destroyed so many therapeutic household gods, before which I was wont to bow in solemn veneration, that I have taken the liberty of collecting some of the pieces and labeling them "pharmacologic fetishisms."

A pharmacologic fetish is no different from any other in the influence it exerts on the mind of its possessor. He is its slave. It dominates him and only by a tremendous effort can he divest himself of its influence. The physician who believes he can supply phosphorus to the nervous system by means of the hypophosphites or phosphates, that he can increase the coagulability of the blood by the administration of calcium salts, that adrenalin hypodermically or internally given will stimulate the heart and raise the blood pressure is the possessor of a pharmacologic fetish. And it is only by a supreme mental struggle, involving almost an assault on his emotions, that he can be made to relinquish these ideas. The tenacity with which we hold to our false beliefs is a strong psychological argument in favor of inculcating sane and scientific doctrine of all sorts into the student's mind during its formative stage.

In the following account of pharmacologic fetishisms, no attempt at classification will be made, and no effort to arrange them in the order of their importance. I simply call attention to some delusions concerning the uses of familiar drugs and discuss what appears to be a rational critical analysis of the same.

I. OLIVE-OIL AND GALLSTONES

Most of us have, at some time in our medical careers, believed that olive-oil cured cholelithiasis. We do not say that we ever indulged in the lay delusion that olive-oil dissolves gallstones, because this would be to insult the intelligence even of those enthusiasts who are to-day pouring the oleate of glyceryl into the stomachs of their gallstone patients. But candor requires us all to acknowledge that we actually did believe in the cholagogue virtues of olive-oil. As a matter of fact experimentation has shown that olive-oil has no effect whatever on the secretion of any of the constituents of bile, or bile itself. But even the most cynical and incredulous therapeutist parts with hesitancy and even with sorrow from this fancy with respect to olive oil.

I had a case of gallstones recently, which illustrates the temptation to grasp and hold to this pharmacologic delusion. The case was that of a woman who suffered from repeated attacks of typical biliary colic. The attacks became frequent and severe, and an operation was advised. This was refused, and for several months the patient was not seen by me. About this time I met the patient's husband on the street and in answer to a query as to the patient's condition, he informed me triumphantly that his wife had been cured by olive-oil which had been recommended in tumblerful doses by a lay friend. I confess to a feeling of discomfiture and to the thought that perhaps my skepticism in regard to the oil was perhaps too strong. A month after this, however, I was called to attend her in another severe atack, and this restored my scientific equanimity. The ingestion of olive-oil might fairly be asserted to have relieved the woman for a longer interval than she had previously experienced, between attacks. Olive-oil may give relief in biliary colic as it does likewise in dysentery, and spasmodic gastropyloric disorders, through its emollient properties on stomach and intestine. Its food value must also be recognized; but as to curing gallstones—never. Cholelithiasis is a surgical and not a medical affection.

II. VALERIAN AND HYSTERIA

The pervading odor of this drug, permeating the atmosphere to the utmost confines of his shop, lends to the pharmacist a mysterious and occult power in the mind of the individual whose nostrils are assailed by it as he enters the drug-store. The frequency with which we all encounter it under these circumstances is a sufficient proof of the high esteem in which it is held by the physician. We know when we smell it that some one has had an attack of nerves, and we feel that the patient's nervousness will be driven away soon after the bottle is uncorked. To what does this malodorus substance owe its vaunted efficacy? To its smell, of course, and certainly not to any effects after absorption. Kionka[5] has informed us that it stimulates the psychic functions and the circulation, but these effects are so slight and indefinite that they fade into insignificance in comparison to the one great feature of valerian, namely, its ubiquitous, its penetrating, its disagreeable odor. Since we are limited in the treatment of hysteric states to working on the psyche of the patient, let us make use of a dignified psychotherapy and dispense with the disgusting and superfluous valerian.

III. TANNIC ACID AND INTERNAL HEMORRHAGE

This delusion is not as prevalent as it used to be, but we all remember distinctly when tannic and gallic acid pills were universally given for hematuria, hemoptysis and other varieties of internal bleeding, and a glance at many works on therapeutics, even at the present day, will show that the error *is sometimes* though not universally perpetuated. A slight knowledge of pharmacodynamics will discover the source as well as the fallacy for this belief in tannic acid. Tannic acid acts as a local hemostatic by precipitating the proteids of the wound. Even in this respect it is inferior to the salts of the heavy metals. The earlier therapeutists, reasoning from analogy, weakest of logical arguments, and without investigating the changes undergone by the drug in the process of absorption, concluded that the acid would act on a bleeding part situated within the body. It remained for modern pharmacologic investigation to show that tannic acid is decomposed in the intestine into gallic acid, absorbed as a non-astringent, and gallate of sodium, 99 per cent. of which is completely oxidized in the tissues. As for gallic acid, this substance is quite devoid of astringent property even when locally applied.

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[4] New and Nonofficial Remedies, 1909, Chicago.

[5] Arch. Internat. de pharmacod., xiii, 215.

IV. ALCOHOL AND ETHER HYPODERMICALLY INJECTED IN SHOCK AND COLLAPSE

In considering this particular species of pharmacologic fetishism we encounter a harmful delusion. Both alcohol and ether after absorption act as cardiac and respiratory depressants. It is possible—nay, probable—that their internal administration may temporarily increase the activity of the medullary centers reflexly, but after absorption their effect is the opposite. In experimental shock alcohol has been found to increase the danger (Crile), while ether injected hypodermically, has been found without effect on the heart or blood pressure (Elfstrand). From these considerations it results that the treatment is either without value or harmful.

V. COLCHICUM AND GOUT

To state that colchicum cures gout is to utter a widely disseminated and influential belief. Let us put the matter in the form of a syllogism to see what we mean. Colchicum cures the gout. Gout is a diseased condition, the pathology of which is so obscure that no rational treatment has been found. Therefore colchicum cures a disease of which the pathology is so obscure that no rational treatment can be found. This is not a *reductio ad absurdum*, because many well-known diseases were curable before their pathology was known. But gout is a syndrone and not a disease, and its very diagnosis and description are vague and uncertain. The question to solve will be, therefore, whether colchicum cures those conditions which are known by the name of gout. Judging from the extent to which the drug is used, and to the fact that very few books fail to include it, one would naturally be inclined to answer the question in the affirmative. We have two methods of solving the problem. One is an appeal to the clinicians. The other is an investigation of the properties of the drug. The first method results, as so often it does, in chaos. Many use it. Many have abandoned it. It may be fairly stated that it is not used as extensively as it was ten or even five years ago. Something has shaken confidence in it. This something is the application of the second method above referred to, namely, an appeal to the drug itself. Colchicum contains two alkaloids which differ from the alkaloids generally in having an acid reaction. Chemically they are related to pyridin. The symptoms induced by colchicum in poisonous doses do not come on until some hours after its administration and they are the same whether the drug is given by mouth or hypodermically. The symptoms refer to the alimentary canal. In this we are somewhat reminded of phosphorus and arsenic. But here the similarity stops because colchicum possesses none of the effects on the metabolism which characterize these metalloids. The symptoms produced by colchicum are those of a gastrointestinal irritant. In medicinal doses the effects are of course much milder in degree but similar in kind. There is no effect on metabolism, circulation or central nervous system. Colchicum is therefore a gastrointestinal irritant, and on this action its therapeutic efficacy must depend. This simple pharmacologic information robs colchicum of any mystery. It is no better nor any worse than other gastrointestinal irritants in appropriate doses. The whole class of vegetable purgatives and calomel might well enter the lists in rivalry for the exalted position held by the meadow saffron. It is useless to speculate on the influence of colchicum on uric acid excretion, because in the first place the results are inconstant or discordant and in the second place it is now recognized that gout and disordered uric acid metabolism are not synonymous terms. Colchicum may therefore be placed in that large and ever growing class of drugs of doubtful or uncertain utility.

VI. THE ANILIN DYES AS TISSUE ANTISEPTICS

The idea of administering the pyoctanins originated with the assumption that these dyes have a special affinity for the protoplasm of the microbes. The use of methylene blue in gonorrhea is the last surviving relic of what was termed chromotherapeutics. It is fast passing into oblivion and requires but a passing notice.

VII. EPINEPHRIN HYPODERMICALLY AS A HEART STIMULANT

I am aware that war will be waged on the individual who classes this among the pharmacologic delusions; for is it not written in many text-books and preached from many rostrums that adrenalin chlorid solution hypodermically injected is a sovereign method of raising the blood pressure and producing cardiac stimulation? Those who hold to this particular fetish do so with great tenacity. It may be stated at once that the only question involved is the method of administration. There is no question as to the action of adrenalin after its intravenous injection, but it seems that in order to elicit the typical vasoconstriction the drug must be introduced directly into the circulation. A very small dose is then sufficient. When given hypodermically the amino-pyrocatechine on which the action depends is oxidized in the tissues and none of it reaches the general circulation. Wiggers[6] recently published an account of some experiments on dogs in which he asserts that the action on the blood pressure was elicited in these animals on deep intramuscular injections.

The following experiment, copied after Dixon,[7] is one which I have performed before my students at Georgetown College. The blood pressure is taken from the right arm by means of a mercury manometer and the exact point where the pulse is no longer felt is obtained. Eight drops of a 1:1000 solution of adrenalin chlorid are injected deeply into the deltoid muscle of the left arm. Absolutely no rise of pressure is indicated in the manometer. There are some subjective symptoms, as pain at the site of injection, muscular weakness, slight abdominal pain and cephalalgia all of which are reflex or at least not due to general vasoconstriction. The consensus of opinion among pharmacologists to-day is that, in order to elicit the blood-pressure-raising effect of epinephrin the drug must be directly injected into the blood vessels.

VIII. POTASSIUM IODID IN SCLEROSES

Potassium iodid very justly deserves the high place which it occupies in pharmacology. But even the iodid is not omnipotent. The success achieved from potassium iodid in removing gumma, which action is attested by all, gave rise to the assumption that the drug possessed mysterious powers of *removing pathologic* conditions of a widely different nature. Among these were serous effusion and connective tissue hypertrophy. Arteriosclerosis, being accompanied by connective tissue hypertrophy in the vessel wall, was soon included. Not all of these conditions, however, are curable by the iodid treatment. The drug has no effect on the heart, pulse or blood pressure, and there are *no pharmacologic data* on which to base its use in the *above diseases*. Finally clinicians are by no means united in its favor. The real indication for potassium iodid in scleroses is syphilis. In the absence of this it is without value.

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[6] Wiggers, Carl J.: Arch. Int. Med., March 15, 1909, iii, 139.

[7] Lancet, London 1906, i, 826.

IX. CHLORATE OF POTASSIUM AND STOMATITIS

Here again the principal fallacy lies in the method of administration. Internally administered for its action after absorption, potassium chlorate is objectionable on two grounds: First, it is toxic; second, it is valueless. The local action of potassium chlorate in the mouth is a simple salt action and may be imitated by other salts such as the chlorids, nitrates, and bromids. Yet this delusion influences many medical men, who believe chlorate of potassium a mysterious specific for all sorts of mouth diseases attended by ulceration.

X. THE HYPOPHOSPHITES IN NEURASTHENIA

This particular delusion has made many millionaires but never effected a cure. I quote Cushny's Pharmacology (page 530): "The hypophosphites have been used in therapeutics in the belief that they had *some special influence on nutrition.* They were formerly supposed to be oxidized in the tissues, to phosphates, but this has been shown to be incorrect, as *practically the whole of the hypophosphite administered can be recovered unchanged from the urine.* There is no ground to suppose that they have any further action on the nutrition than other indifferent salts such as the chlorids. The chief effect of the hypophosphite of iron is due to the metallic ion." A closely related, but equally fallacious idea is that the phosphates are beneficial in neurasthenia and cachectic states. It is supposed *that they supply phosphates to the tissues. Experimental investigations have shown,* however, that the tissues are entirely unable to build up phosphorus compounds from the inorganic phosphates.

XI. LITHIUM SALTS AND THE URIC ACID DIATHESIS

How lithium *ever obtained its tremendous* vogue with medical men is one of the *great mysteries* of pharmacology. Now that its influence is slowly fading into well-merited oblivion, we may profit by the experience and cultivate a more critical attitude toward the subtile sophistries of the pharmaceutical chemist. Not only is the present-day physician *losing faith in the* drug, but he is extremely *suspicious that* his confidence has been betrayed with respect to the very existence of the uric acid diathesis. He has been taught to fire, as it were, with imaginary guns at an imaginary enemy. The chief effects of lithium are exercised on the alimentary tract, gastroenteritis and *blood extravasations* being induced in animals by its subcutaneous or intravenous injections. In this it reminds one somewhat of the heavy metals and alkaline earths. Some of the lithium is excreted by the bowel *and this perhaps* accounts for its effect. Lithium is used generally as carbonate, and consequently the effects of the alkalies is added to that of the lithium. At one time it was supposed that the hydrates and carbonates *of the* alkaline metals increased oxidation of the tissues, and therefore *affected metabolism.* But this has been shown by *laborious investigations to be entirely devoid of any* foundation in fact. Lithium was at one time supposed to form a soluble urate with uric acid in the tissues, but apart from the fact that such a combination could be of no use in therapeutics, the lithium salts have never been shown to affect the reaction of the blood unless in *toxic quantities.* The opinion of pharmacologists at the *present time* is that the salts of lithium are entirely superfluous. I scarcely need mention piperazin, quinic acid and other so-called specifics for uric acid diathesis, as they are properly undergoing, if they have not undergone, a well-merited extinction.

XII. CALCIUM SALTS IN INTERNAL HEMORRHAGE

The salts of calcium are supposed by many physicans—perhaps a majority—to increase the coagulability of the blood. As a matter of fact, they have no influence on coagulation time (Robertson, Illman, Duncan[8]). Nor is it quite clear from a pharmacologic standpoint why they should ever have been expected to do so. Almost all of the calcium taken internally is passed through the bowel unchanged, owing to its extreme insolubility and impermeability. Then, too, it should be remembered that there is almost never any deficiency of calcium in the adult tissues. Treating with *calcium internal hemorrhages in which the coagulability* of blood is not reduced seems the height of folly. The calcium ion is useless in therapeutics.

The above are not the only pharmacologic delusions which deserve the name of fetish. There are others too numerous to mention in detail, such for example as the use of turpentine in phosphorus poisoning, ferric hydrate and magnesia in arsenic poisoning, alcohol in snake-bite, *nitroglycerin as a heart stimulant in* anesthetic accidents and shock, etc. My object is not to attempt to belittle our knowledge of pharmacotherapy, but to offer a humble plea for the application of the *same critical analysis and scientific examination* of the alleged facts in matters pertaining to treatment by drugs, as characterizes the physician in his attitude towards the other branches of the science of medicine.

TUBERCULOSIS OF THE KIDNEY

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In reviewing the history of the various diseases, we find that our knowledge concerning them has not always advanced in a steady progressive manner but has been marked by periods of great activity followed by longer or shorter intervals of comparative quiescence.

During the past few years our knowledge concerning the particular disease under consideration, namely, tuberculosis of the kidney, has made most remarkable advancements and the chief factors which have brought this about are two: first, the discovery and perfection of the cystoscope, which lent such an impetus to the study of the diseases of the urinary organs in general; and, second, frequent and early *operations on the kidneys,* which have enabled us to study the actual pathology *of the living.* While these factors are undoubtedly the means by which the advancement in our knowledge was attained, the real fundamental feature *of the knowledge* consisted in the recognition of the fact that what for years had been looked on as a truth was *a fallacy.*

How often it is found that the climination of an error contributes more to real knowledge than the discovery of a new truth! For years the profession had been taught and had believed that tuberculosis of the kidneys was secondary to tuberculosis of some portion of the lower urinary or genital tract and therefore due to an ascending infection. Guyon, one of the greatest teachers of genitourinary surgery of this period and one whose influence was felt perhaps more widely than that of any other teacher, is quoted as stating in his lectures that a primary unilateral tuberculosis of the kidney was unknown in which there did not exist at the same time a similar lesion of the bladder, seminal vesicals or other organs.

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[8] The Journal A. M. A., May 16, 1908, i, 1683.

The reason for the firm and wide-spread belief in the ascending origin of kidney tuberculosis is not difficult to understand. It lies in the fact that an autopsy—practically the only opportunity afforded for inspecting the parts—always disclosed a coexisting tuberculosis of some portion of the lower genitourinary tract and owing to the order in which the symptoms usually appeared during life it was inferred that the lower lesions necessarily antedated the higher.

It is no wonder then, that during all these years, the treatment of tuberculosis of the kidney, based as it was on an erroneous theory, made little or no progress and was a sad tale to relate. But what a change came over the scene on the introduction into practice of the cystoscope! By its use, it was soon discovered that the early bladder symptoms were not due to disease of that organ; the pus and blood in the urine came not from the bladder but from the kidney; and by catheterizing the ureters or by the use of the segregator, it was further found that these pathologic products came not from both kidneys but usually from only one.

A great truth then dawned on the surgeon. He realized for the first time that tuberculosis of the kidney was not a secondary, ascending infection from the lower tract but primarily an unilateral hematogenous infection of the kidney itself; and this fact was demonstrated beyond controversy by the early removal of such infected kidneys by the surgeon, thus affording an opportunity to study the pathology of the living.

PATHOLOGY OF RENAL TUBERCULOSIS

The study of the removed kidneys, together with the experimental work on animals, have given us a very good insight into the pathogenesis and the pathologic anatomy of this condition.

It should be understood that the word "primary," in this connection. refers only to the urinary tract and not to the body as a whole, for the bacilli must be in the blood before they can lodge in the kidney; and there likewise must be an atrium in the body through which the bacilli gain entrance to the blood.

Tubercle bacilli are frequently present in the circulating blood. This is shown by the very common occurrence of tuberculous foci in the bones, in locations inaccessible to the bacilli, except through the blood current, and also by the fact that tubercle bacilli, if looked for thoroughly enough, may be found in the urine in a large percentage of, if not in all, cases of active tuberculosis of the lungs or other organs, and in the absence of demonstrable lesions of the kidneys themselves or of other portions of the urinary tract.[1] This is a fact not sufficiently appreciated.

The presence of these bacilli in the blood and their elimination by the kidneys make it possible for them to lodge and develop in these organs at any time, under certain suitable determining causes. Orth[2] has clearly shown the influence of trauma to the kidney in determining the localization of bacilli circulating in the blood.

Should the bacilli in the blood be quite numerous and exist comparatively singly they may be widely disseminated throughout the kidney, particularly the cortex, giving rise to the ordinary form of miliary tuberculosis; but this is not the form commonly seen nor the one here under discussion. In the usual form, the bacillary emboli are few and there may be only one.

The smaller ones lodge in the capillaries between the tubules giving rise to typical tubercles which undergo the usual caseous changes. I have seen typical giant cells developing in the walls of the smaller blood vessels and giving rise to such a proliferation of the intima as to lead to an occlusion of the vessel lumen.

Some of the larger emboli may lodge in the larger vessels of the medulla of the pyramids, producing typical ischemic infarcts which undergo disintegration with the formation of small tuberculous cavities. Two or more of these small cavities may coalesce, thus forming larger cavities which sooner or later open into the pelvis of the kidney or occasionally on the surface of the kidney, into the perirenal tissue with the formation of perirenal abscesses. These cavities are lined with the usual granulation tissue studded with tubercles and are surrounded by round-cell infiltration and beyond this by an area of interstitial nephritis.

When small emboli lodge in the vessels of the papillæ near the surface, the surface epithelium is lost by disintegration, leaving behind small ulcers which always bleed slightly and at times quite profusely. The bacilli which are constantly thrown off from the surfaces of the cavities and from the ulcers mix with the urine and in descending, infect the mucosa of the pelvis, the ureter and eventually the bladder.

The process in the kidney usually progresses steadily until the secreting portion of the organ is practically destroyed, leaving a mass of irregular tuberculous abscess cavities with walls of varying thickness and all surrounded by dense hyperplastic perirenal tissues.

While the changes above described are those commonly found in tuberculosis of the kidney, we occasionally encounter cases in which the lesions differ from these sufficiently to warrant separate mention. In place of there being multiple foci scattered throughout the organ, there may be but a single focus, perhaps of considerable size, which is then commonly called a large solitary tubercle. The area involved has the appearance of an ischemic infarct and is quite sharply demarcated.

In a kidney of this kind which I removed from a young woman of about twenty-four years, the area involved occupied about one-third of the kidney substance. It was light yellowish in color, rather firm in consistence and so large that it was easily palpated through the intact abdominal wall and was diagnosed, previous to removal, as a kidney tumor on account of the absence of pus and tubercle bacilli from the urine. Microscopic examination showed that the cellular elements had undergone such complete coagulation necrosis with fragmentation of nuclei that the entire area was simply granular detritis. The most important feature of this case is that in the kidney capsule, remote from the area itself, were found characteristic microscopic tubercles, again illustrating the fact that resection of a portion of a kidney, even in the presence of a so-called solitary tubercle, is as a rule an unjustifiable operation.

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[1] Willson, Robert N., and Rosenberger, Randle C.: The Duration of the Actively Infective Stage of Tuberculosis, THE JOURNAL A. M. A., Feb. 6, 1909, lii, 449.

[2] Deutsch. med. Wchnschr., 1907, No. 48.

Another form worthy of mention is that in which the chief changes consist in an extensive hyperplasia of the interstitial connective tissue with marked destruction of the glandular elements, so that the whole kidney becomes so atrophied as to leave but a small, practically functionless organ.

I will mention only one other form which, though rare, is of importance on account of its deceptive appearance.

The whole organ becomes infiltrated with tubercles, which are so close together and so numerous that, as they undergo caseation, practically the entire kidney becomes converted into a caseous mass with little if any change in form or size. An instructive case of this kind came under my observation a short time ago.

CASE 1.—The patient, a woman of 35, had had an abscess of the right kidney opened and drained about five years before. She recovered with closure of the wound, and, although her general health remained quite good, she continued to have a slight amount of pus in the urine and complained a great deal of pain in the left kidney. The left kidney was easily palpable, could be distinctly outlined in form and size and was freely movable to the second degree. The right kidney was also palpable and somewhat enlarged. Repeated segregations of the urine always led to the same result, namely, no urine whatever from the left kidney but all of it from the right side. This was very puzzling on account of the distinctness with which the left kidney could be felt. She repeatedly asked me to operate on her to see if she could not get relief from the almost constant and annoying pain which she had in the left kidney, but I declined on account of her crippled right kidney. Finally, I yielded to her importuning and cut down on the left kidney. The organ presented a most deceptive appearance. It was practically normal in size and shape, yet the lower pole contained a large tuberculous cyst, while the remainder of the organ consisted of a caseous mass in which, even on microscopic examination, scarcely a trace of cellular elements could be found.

Complete anuria followed the operation and death occurred on the fourth day. At the autopsy numerous tuberculous foci were found in the right kidney and on microscopic examination the secreting cells had undergone acute coagulation necrosis with beginning disintegration.

DIAGNOSIS

Before the pathology of tuberculosis of the urinary tract was understood, tuberculosis of the kidney was seldom diagnosed in the early stages. One of the principal reasons for this lies in the fact that in the majority of the cases of this affection, the earliest symptoms are referred, not to the kidney, but to the bladder; and this fact is what lent such support to the belief, formerly held, in the ascending origin of kidney tuberculosis.

The natural tendency in medicine for one to look to the organ presenting the symptoms for the seat of the disease is so strong that the fact is frequently overlooked that the real lesion may be remote from the apparent one; and in no part of the body is this fact more frequently or more forcefully illustrated than in the urinary tract. This natural tendency is, I believe, the greatest stumbling-block in the way of an early recognition of a tuberculous kidney.

Frequent and painful or harassing urination, the most common initial symptom of renal tuberculosis, immediately suggests to the average observer a cystitis or inflammation of the bladder; yet if there is one thing more than another which the use of the cystoscope has taught us, it is that no diagnosis of an apparent affection of the bladder is complete until the interior of that organ has been thoroughly inspected and the presence or absence of actual lesions verified.

I wish it were possible for me to say something that would impress on the mind of every physician, in a manner never to be forgotten, the fact that a simple diagnosis of cystitis means little more than does a diagnosis of "fever" or of "cough." The diagnosis of cystitis is never complete until the cause of the trouble is discovered. Cystitis is practically never of spontaneous origin. It is always due to something else and it is this something else that constitutes the real trouble which is to be determined.

If there is one fact above another which I desire to emphasize here, it is that the symptoms above mentioned, coming on gradually in youth or early adult life, without apparent cause, should excite in the mind of the attending physician, not only the possibility but the great probability that they are due to tuberculosis of the kidney. In the beginning, the symptoms may be slight and inconspicuous, particularly in young women in whom they are frequently referred to leucorrhea or to some uterine disturbance and little heed paid to them.

Every case of this kind demands the most careful inquiry into the history concerning the possibility of an acquired tuberculous infection and search should be made for active or latent tuberculous foci somewhere in the body.

The bladder symptoms in the early stages of such cases are the so-called irradiation symptoms of a kidney lesion and are not due to direct involvement of the bladder itself, but it should be remembered that sooner or later the tuberculous process extends to and involves the bladder, when the irradiation symptoms pass insensibly into those of a distinct bladder lesion.

From the symptoms alone, it may be impossible to decide whether they are due to a kidney lesion or to actual bladder involvement and the only way in which this point can be determined is by an inspection of the interior of the bladder.

To attempt to diagnose a case of this kind without the use of the cystoscope would be on a par with an attempt to diagnose a condition of the throat without inspecting it.

By means of the cystoscope, the location of the trouble can usually be determined at once, at least in so far as the involvement or non-involvement of the bladder is concerned.

After the seat of the disease has been located, the decision as to whether it is tuberculous or not rests chiefly on the urinary findings, the only positive evidence being the presence of the tubercle bacillus; yet the expert cystoscopist is frequently able to say with considerable precision, from the appearance of the lesions alone whether they are or are not of a tuberculous nature.

In the vast majority of the cases of tuberculosis of the kidney the urine is altered in its chemical and physical properties.

Coincidentally with the appearance of the irradiation symptoms there is usually a polyuria and whenever the process involves the pelvis of the kidney or is in communication with the pelvis directly or through the tubules, pus and blood are to be seen with the microscope and frequently with the naked eye, while proper tests show the presence of a variable amount of albumin.

Notwithstanding the fact that the continued presence of pus with perhaps some blood in a urine which is markedly and persistently acid, is strong presumptive evidence of the tuberculous nature of the trouble, still the actual proof consists in the finding of the tubercle bacillus as previously stated. Ekehorn[3] says that large masses or colonies of tubercle bacilli in urine indicate origin in the kidney, as such masses do not come from the bladder or ureter; also that a large amount of pus with a small number of tubercle bacilli speaks for an old cavity with sclerotic walls, while inconsiderable amounts of pus with numerous bacilli exclude extensive breaking-down of the kidney.

It is a common observation that the examination of the urine for the bacilli is too superficial. They may be present only in small numbers and it may be necessary to collect and centrifuge large amounts of urine and to make repeated examinations of the sediment before a single bacillus is found: but when they are present, perseverance is almost certain to be rewarded, particularly in the early stages and it is in the obscure and doubtful cases that perseverance is so necessary. The smegma bacillus is best excluded by taking the urine by catheter under proper precautions. Goldberg[4] holds that a spontaneous severe pyuria, gonorrhea excluded, is to be considered tuberculous even when tubercle bacilli can not be found if the urine, drawn with a sterile catheter, shows no growth on gelatin or agar. Luxardo[5] has emphasized the necessity of examining fresh urine, as in old urine the tubercle bacilli may be so overgrown with other organisms as to be less readily recognized. Next to the bladder symptoms mentioned, the most frequent initial symptom is hematuria.

The blood may be present in almost any amount, from a comparatively few red blood cells recognizable only under the microscope to enough to give the urine a distinctly bloody appearance. Occasionally the initial hemorrhage is quite severe and may appear suddenly without apparent cause and in otherwise apparently healthy individuals, as has been described by Tuffier.

When hematuria once appears, it is likely to persist in greater or lesser degree, at least during the earlier stages when it is much more common than it is during the later stages.

Pus and blood exist in the urine usually in inverse ratio; in other words, when there is a great deal of pus, there is but little blood; and when the bleeding is profuse, there is likely to be but little if any pus.

In a minority of the cases, the initial symptoms are not referred to the bladder but present themselves as an indistinct aching or an indefinite uncomfortable feeling or slight pain in the region of the kidney. These sensations continue with periods of varing intensity, occasionally interspersed with a sudden, more or less severe, acute pain shooting into the back or down along the course of the ureter.

In a majority of these cases, the urinary findings above mentioned will be present; but one occasionally meets a rare case in which the urine is apparently normal, owing to the fact that the lesion in the kidney does not in any way communicate with the pelvis. I recently saw a patient with such a lesion, from whom the kidney was removed by my colleague, Dr. Hessert, at the Alexian Brothers' Hospital. The urine showed no abnormal constituents, yet in the kidney was a large tuberculous focus, occupying one pole of the organ but not communicating with the pelvis.

When a diagnosis of tuberculosis of the kidney has been made it becomes necessary to determine which organ is involved, for as already stated, the condition is primarily unilateral.

This is done by collecting the urines from the two kidneys separately, either by means of ureteral catheterization or by the use of the segregator. The information obtained from comparative analysis of the separated urines is of inestimable value from a prognostic as well as from a diagnostic viewpoint.

The technic of ureteral catheterization and of urine segregation, together with the inferences which may be deduced from an examination of the urines thus collected, are foreign to the subject of this paper and will therefore not be discussed here, nor will further space be taken up in detailing the symptoms of advanced cases which are so familiar to all.

TREATMENT

The hope of successful treatment depends largely on an early diagnosis, therefore it is to the early symptoms that particular attention is directed. I can not too strongly urge the necessity of investigating most carefully every case presenting any of the above mentioned symptoms until the presence of tuberculosis is either confirmed or excluded.

In considering the treatment of tuberculosis of the kidney, I wish to subdivide the cases into three groups.

1. Those in which a very early diagnosis has been made and in which the symptoms are slight.
2. Those in which the condition is well defined but the process still limited to one kidney with or without involvement of the bladder.
3. Those in which both kidneys are involved.

It will conduce somewhat to clearness to divert slightly from this order and take up the second group first.

In this class, an examination of the separated urines shows one kidney decidedly tuberculous and the other practically normal. If the condition has existed very long, the bladder may show more or less involvement about the ureteral opening; or the opening may be swollen and pouting without further lesions in the bladder.

The treatment of this group of cases has become quite definitely established and consists, when no contraindication exists, in complete nephrectomy. This operation removes at once the active tuberculous focus from the body; and it is often remarkable how quickly the general health of the patient is recovered after the removal of the infected area. Even when the bladder is distinctly involved, it is found that these lesions improve and frequently disappear entirely, as the constant reinfection through the urine ceases by reason of the removal of the diseased kidney above.

When it was recognized that a single tuberculous focus might be present in the kidney, the thought suggested itself of resecting that portion of the kidney and saving the remainder and this operation was done a few times. Experience, however, soon demonstrated that it was impossible to tell whether that portion of the kidney left did not contain other foci; and even in the presence of a so-called solitary tubercle, it was shown that small microscopic tubercles might be present, remote from the large focus, as in my own case above mentioned.

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[3] Arch. f. klin. Chir., 1907, lxxxiv.
[4] Centralbl. f. inn. Med., 1907, No. 16.
[5] Reported in Hildebrand's Jahresb. a. d. Geb. d. Chir., 1908.

The results of resection, therefore, were not good and the operation has been practically abandoned. Delbet[6] and De Paoli[7] have recently again called attention to the dangers of resection in these cases.

At the present time then, we may look on complete nephrectomy as the normal treatment in this class of cases.

Returning now to the first group of cases, or those in which a very early diagnosis has been made and the symptoms are slight, the question at once presents itself whether, if nephrectomy is the proper treatment for tuberculosis of the kidney, it should be resorted to in all cases just as soon as a diagnosis is made, even though the trouble be slight. This at once raises another question, namely: Is it possible for a tuberculous lesion of the kidney to heal?

That tuberculous lesions elsewhere in the body may and very frequently do heal is of course well known; and I think I may state it as a fact without entering into a lengthy discussion of the evidence at hand, that the same thing may occur in the kidney, although it is freely admitted that it occurs very rarely here as compared to some other organs, the lungs for instance.

Clinical experience, as well as the finding of an occasional scar of a healed lesion in a kidney, I think bears out this statement.

I now have under observation a young woman in whom I diagnosed a tuberculosis of the left kidney four years ago. The symptoms were mild but under suitable climatic and general conditions, complete symptomatic recovery has taken place including a disappearance of the tubercle bacilli from the urine. She now is a strong healthy young woman.

I am of the opinion then, that in certain selected cases, a reasonable time may be spent in suitable hygienic, general and specific treatment before resorting to nephrectomy.

If the patient improves, well and good, but if after a reasonable time no improvement be noted or if the symptoms increase in spite of the treatment, no further delay should be tolerated but nephrectomy performed at once.

We now come to the third group or those cases in which both kidneys are involved.

The problem in these cases is entirely different from that in the other two groups. Both kidneys are involved, and it is of course imposible to do a double nephrectomy. These cases have been considered by most operators therefore as unsuitable for operation. I am convinced, however, that this view of the subject is, with certain restrictions, erroneous. Changes in the second kidney are of two kinds: Those due presumably to the effects of toxic agents and those due to direct tubercular infection. Albarran has classified the first variety clinically as follows:

A. Slight albuminuria which gradually diminishes and disappears after nephrectomy.

B. Albuminuria with or without polyuria and cylindruria persisting for several years even after nephrectomy.

C. Parenchymatous nephritis with slow or rapid development.

D. Hemorrhagic nephritis.

E. Simple cylindruria.

He says that nephrectomy may be done in the presence of simple albuminuria without danger but should be interdicted when the albuminuria is a forerunner of a severe nephritis.

I believe that almost every case in which one kidney has been badly affected for any length of time will show some of the clinical evidences just mentioned of injury to the opposite kidney; but I agree with Albarran that nephrectomy is not contraindicated in their presence, except when the kidney shows distinct evidences of a severe nephritis.

It is, however, particularly to the second variety or those cases in which the second kidney shows evidence of tuberculous infection that I wish to direct attention. Operation in these cases has been heretofore practically interdicted. I believe that in certain of these cases, properly selected, operation may be done not only with improvement but even recovery to the patient. We recognize that tuberculosis of the kidney is primarily a unilateral affection and that the second kidney becomes involved at some later period. There must be a time then when the second kidney is but slightly involved however badly affected the first kidney may be. If we can recognize the cases at this stage I maintain that the second kidney stands a much better chance of overcoming its slight infection and thus healing if the more extensively involved kidney be removed. In support of this statement, I wish to mention briefly the following cases:

Case 2.—In 1901, Mrs. M., aged 37, applied to me, having suffered for more than a year. She was greatly emaciated, almost bedfast, ran a constantly high temperature; suffered severe pain in the left side of abdomen; distressing frequent micturition, etc. A large irregular tender mass was easily palpable in the region of the left kidney. A diagnosis of tuberculosis of the kidney was made without difficulty. Repeated examinations of the separated urines showed that both kidneys were affected, although there was no difficulty in recognizing that the left kidney was much the worse. On account of the bilateral involvement I declined to operate and she left me. She soon returned, however, and earnestly begged me to do something for her, as her sufferings made her life unbearable. After giving her the most unafavorable prognosis possible, I removed the left kidney. The organ was almost entirely destroyed with large tuberculous abscesses, etc. After a few days of precarious existence she began to improve. The urine from the right kidney showed the same changes as before the operation, but steadily improved so that at the end of six months it had entirely cleared up with the exception of containing albumin. The patient regained her health quite rapidly and was able to resume all her duties. She is still living, eight years after the operation. She weighs 175 pounds and is perfectly well. Her urine contains no formed elements but has now and has had all the time from 0.5 to 1 per cent. of albumin by the Esbach method.

Case 3.—Mr. S., aged 25, tailor on the bench, applied to me in June, 1906. He had suffered many months until he was obliged to give up work; had lost much in weight and strength and had constant hectic fever, pain in the left kidney and bladder, distressing urination, etc. The diagnosis was tuberculosis of the kidney. Cystoscopic examination showed incipient involvement of bladder about left ureter. Separated urines showed pus and tubercle bacilli in both specimens, much more in the left. Analysis showed the left kidney doing the great bulk of the work. The left kidney was removed and found largely destroyed by tuberculosis. Following the operation the patient received tuberculin treatment, based on opsonic index and Rovsing's carbolic acid treatment of bladder. His general and local symptoms improved slowly and he was able to resume his work. Now, nearly three years after the operation, he is working steadily at his trade and, although he has symptomatically recovered, his urine still shows a slight amount of pus and some albumin.

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[6] Ann. d. mal. d. org. genito-urin., 1907, No. 12.

[7] Report in Hildebrand's Jahresb. a. d. Geb. d. Chir., 1908.

CASE 4.—Mrs. B., aged 30, applied to me in August, 1900. She had been suffering for about a year with the usual symptoms. Her weight was 99 pounds, average weight for previous five years 120 pounds. The bladder showed considerable redness, swelling and pouting about right ureter; very slight changes about left ureter. Separated urines showed much pus, some blood and tubercle bacilli from right side. There was a slight amount of pus and a few tubercle bacilli from the left side. The amount of urine obtained in a given time and its analysis showed that the left kidney was doing fully 75 per cent. of the amount of work. The right kidney was distinctly enlarged and irregular. A diagnosis of tuberculosis of both kidneys was made, the left being but slightly affected. After the condition was explained to the patient and her husband, both of whom were very intelligent people, they agreed to the removal of the right kidney, which I consequently did, and found the usual changes of multiple tuberculous foci and abscesses. She recovered and returned to her home in one of the southeastern states. Reports from her as to her subsequent history show that during the first year the urine contained a small amount of pus and extra exertion always caused more or less blood to appear, but this gradually improved and after the first year disappeared. She lived out of doors a great deal and forced the nourishment so that by November, 1907, her weight was 145 pounds—many pounds more than she had ever weighed before. She lost some of this, however, but maintains her usual standard weight. Following exhaustion or cold, she has some pain in the left kidney, but this is not frequent and scarcely ever happens when she feels well. Her general health and local symptoms have so materially improved that I can account for it all only on the supposition that the tuberculous lesions of the remaining kidney have practically, if not quite, healed.

These cases, from two and one-half to eight years since the operation, are of long enough standing to show results; and when it is remembered that they were all bad cases rapidly progressing and that the patients are now well, I think we are justified in concluding that some patients, even with bilateral involvement, can be saved by operation. The cases, however, must be carefully selected. The separately collected urines must be examined sufficiently to enable one to judge of the ability of the remaining crippled kidney to sustain life. This is a difficult matter to estimate, as it is impossible to tell the recuperative power of a particular organ. A kidney which is doing insufficient work in a badly septic body may have its functional capacity increased remarkably when relieved of its burden of intoxication. One must depend, therefore, on an experienced judgment based on all the facts of the case, rather than on any particular test-tube findings. The two factors which I believe are instrumental in favoring healing in these cases are the facts, first, that by removing the badly diseased organ we relieve the system of an immense amount of toxic matter, which is constantly injuring the other organ to take care of, and second, that by removing one organ, we increase the blood supply to the other and thus induce, if not a Bier's passive hyperemia, at least an active hyperemia.

Of course all such patients after operation should receive the best hygienic, general and specific treatment possible.

In conclusion the burden of my plea is this:

First, I urge a more thorough and systematic investigation of all patients presenting urinary symptoms in order to recognize tuberculosis of the kidney in its early stages. Second, I believe that bilateral involvement is not in itself a contraindication to operation but that in suitably selected cases, in which one organ is only slightly involved, the removal of the more extensively diseased kidney may be an aid to the recovery of the other. Third, when a diagnosis has been made early, and the lesion is presumably slight, hygienic general and specific treatment should be given a fair trial before a resort is had to nephrectomy. Fourth, when an operation is undertaken, it should be a complete nephrectomy, if possible, as incomplete operations, such as nephrotomy, partial resection, etc., have not been followed by good results.

100 State Street.

THE INOCULATION ACCIDENT IN MANILA IN 1906

CONTAMINATION OF CHOLERA VACCINE WITH PLAGUE VIRUS

W. M. HAFFKINE, M.D.
CALCUTTA, INDIA

About two years ago Dr. Paul C. Freer, Director of the Bureau of Science, Manila, P. I., reported[1] an accidental contamination of Haffkine anticholera vaccine with the virus of plague, which occurred in Manila in 1906. A number of natives were inoculated with plague, and several died. It is supposed that some one placed a forty-eight hour virulent plague culture, insufficiently labeled, among the cholera cultures, and that the whole were mixed and inoculations immediately made.

CHOLERA VACCINATION IN INDIA

The study of vaccination against cholera, according to the method worked out in 1890-93, in the Paris Pasteur Institute, began in India in April, 1893; that is, about thirteen years previous to the Manila accident. The procedure which was adopted for cultivating and inoculating the vaccines was described, with great detail, in a pamphlet[2] by Mr. E. H. Hankin, M.A., Chemical Examiner and Bacteriologist to the government, Surgeon Lieut.-Col. C. H. Owen, I.M.S., Medical adviser to the State of Patiala, and myself. Lieut.-Col. (then Surgeon-Captain) Hare, I.M.S., the present sanitary commissioner of Eastern Bengal and Assam, published a more detailed version[3] of the same technic two year later; and, somewhat later still, a description[4] of the method of transforming cholera virus into the vaccine strain.

The extent to which the above procedure rendered the operation safe, and the facility with which it was learned by non-specialists and by subordinates, may be gauged from the following facts.

The inoculations were at first carried on by myself; and between 1893 and 1896 were introduced in over a hundred towns and villages in the Indian plains and the Himalayas. I prepared the vaccine in trains, while traveling from place to place, in the ordinary passenger carriages and at railway stations, while waiting for the arrival of trains; also in tents, in "dak-bungalows" and pad held to the skin by appropriate clips. The labia having been separated and supported by the fingers of an assistant, the sharp point of a pair of scissors is introduced into the subcutaneous cellular tissue just external to the orifice of Bartholin's gland. The incision is carried around the posterior margin of the introitus just external to the carunculæ until a point external to the orifice of the opposite Bartholin's gland is reached. A pair of tenaculum forceps is then fastened to the outer edge of the posterior part of the incision to serve as a retractor. No separation of the vagina from the rectum is necessary except when the tissues about the posterior commissure are so cicatricial that the usual gaping of two or three centimeters of the wound edges is not obtained. If the posterior wall of the vagina is bound down and deformed by cicatricial tissue this should be loosened sufficiently to overcome the deformity (Fig. 1.)

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[1] Accidental Inoculation with the Virus of Plague, THE JOURNAL A. M. A., April 13, 1907, xlviii, 1264.

[2] Technic of Haffkine's Anti-Cholera Inoculation, Lahore, Punjab, 1894. The pamphlet was reproduced in the Indian Medical Gazette, Calcutta, June, 1894.

[3] Ind. Med. Gaz., June, 1896.

[4] Technic of Haffkine's Method of Preparing Fixed Cholera Vaccine, Ind. Med. Gaz., November, 1896.

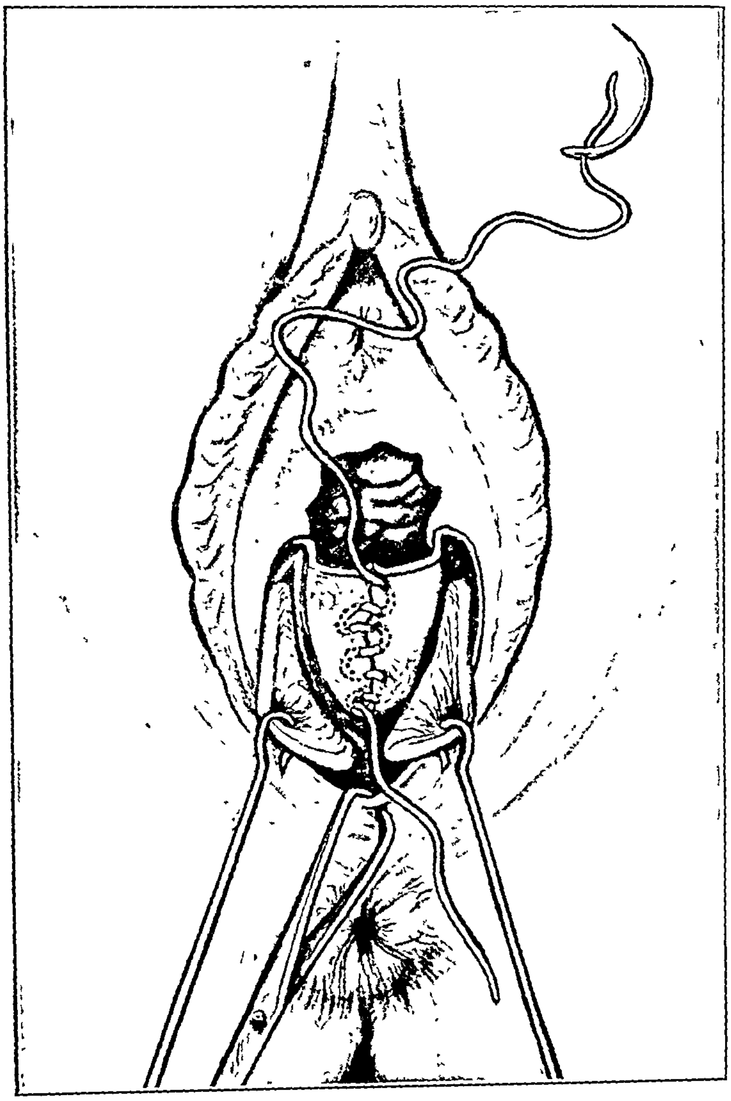

Fig. 3.—Step 3: Submucous closure of vaginal wall. With a continuous suture of plain, number one catgut, beginning below, the edges of the vaginal wound are united. This suture does not penetrate the mucous surface and serves to lengthen the vagina and to narrow the introitus. If the posterior vaginal wall be very redundant, this first suture may be buried by a second row of interrupted or continuous sutures, catching the tissues lateral to the first and so rendering the vaginal wall thicker, more rigid and more convex. When a level above that of the emergence of the muscles has been reached this suture is temporarily laid aside.

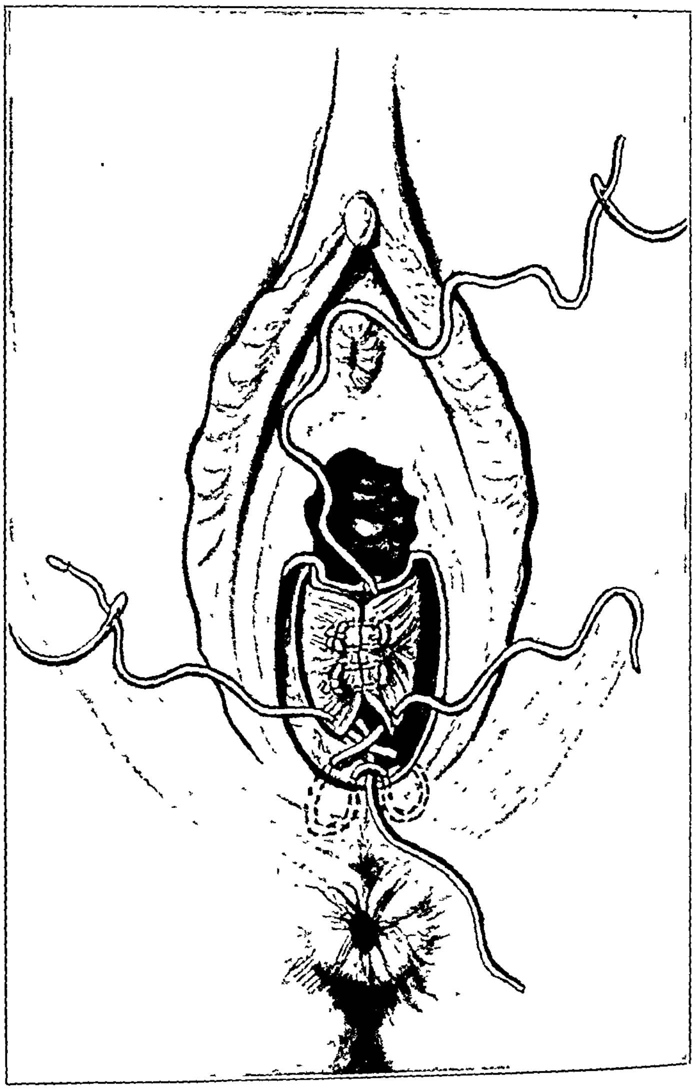

Fig. 4.—Step 4: The edges of the levator ani muscles are united in the median line under the united vaginal wall by mattress sutures. This muscular sling accentuates the lateral vaginal sulci and restores the normal II-shaped section to the vagina. In certain cases a continuous or simple interrupted suture may be substituted. Some of the sutures should catch the under surface of the vagina to prevent the formation of a dead space. Below a modified figure-of-8 suture is shown, which serves to unite the levator ani with the sphincter ani and to support the sphincter. This figure-of-8 type of suture in this situation is not usually required and frequently no support or reinforcement of the sphincter is necessary. If the sphincter be divided, however, the ends are to be isolated in the wound and united by buried sutures of chromicized catgut, and in extreme cases the sphincter may also be reinforced by slips of the levator ani split off from each internal edge, crossed and wrapped about the sphincter and sutured into place. No additional incision is required in a complete tear, but merely sufficient dissection in the wound to expose the divided ends of the sphincter, which are then united.

The second step consists in the exposure of the levator ani. The edge of the muscle is located between one finger placed against the lateral wall of the vagina, and a second finger or thumb placed in one side of the wound. Having located the muscle in the wound, a pair of sharp-pointed scissors is thrust through the depths of the wound to the situation of the anterior edge of muscle, then opened and withdrawn. This penetrates the remains of fascia of Colles, the two layers of the triangular ligament and perhaps the thin and at times almost inconspicuous layer of the transversus perinei profundus which lies between. The opening is enlarged by stretching with the fingers, or if necessary, by a few touches of the knife, and the finger is passed into the opening close to the lateral vaginal wall until the edge of the levator ani is felt. The muscle is freed on its inner and outer sides by the finger, grasped with a pair of tenaculum forceps, and pulled into the wound. On the side of greater laceration the muscle will usually be found to have the deepest situation. The isolation and exposure of the muscle is usually easy and requires but a few seconds of time. Very rarely will the muscle be found to be completely divided. The opposite edge of the levator ani is then exposed and brought into the wound in the same manner (Fig. 2).

The third step of the operation consists in the repair of the vaginal mucous membrane. With a curved needle and No. 1 plain catgut the mucous membrane is united beginning near what was the posterior commissure. A continuous suture is used engaging the submucous cellular tissue a short distance from the wound edges and uniting the upper border of what was a transverse incision in a vertical manner. In doing this, the part of the vagina that was near the posterior commissure comes to occupy a point several centimeters above the introitus and the length of the vagina is restored. If there is much redundancy a second row of sutures may be applied catching the tissue outside suture number one and so rolling the submucous tissues together that the convexity on the mucous surface of the posterior wall of the vagina is markedly increased. Suture number one which has thus made a partial submucous closure of the vaginal wall is then temporarily laid to one side to be finished later (Fig. 3).

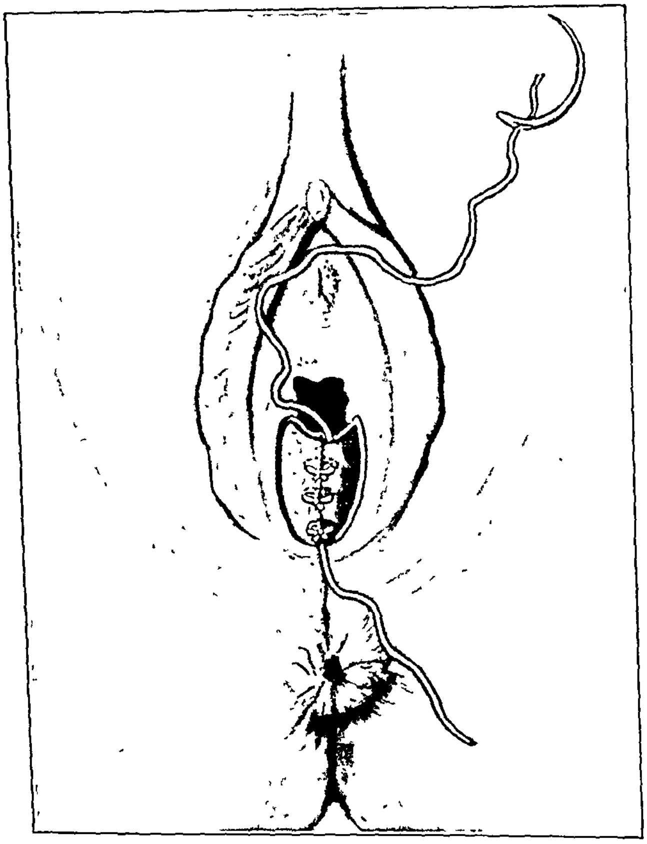

Fig. 5.—Step 5: Suture of the inferior fascial plane (urogenital trigone) over the united muscles This supports and reinforces the united muscles, and, as the transversus perinei profundis muscle lies within this fascia, the action of this muscle is reinforced. A continuous, interrupted, mattress, or imbricating suture may be employed, depending on the strength of the suture line required in the particular case. The ends of suture one are shown emerging above and below.

The fourth step of the operation consists in uniting in the median line the edges of the levator ani muscle, which are located by the attached tenaculum forceps. Interrupted, continuous or mattress sutures of chromic catgut may be employed, but the muscle must not be united so far anteriorly as unduly to constrict the orifice. Some of these sutures catch the underlying submucous tissue to prevent the formation of a dead space. Posteriorly, a simple or figure-of-eight suture is employed to bind together the various structures that meet here, and if necessary, to give support to the sphincter ani. In certain cases, it may be desirable to reinforce the sphincter ani by splitting off strips from the anterior edges of the levator ani, wrapping these about the sphincter and fixing them in place by sutures. Rarely is a similar procedure desirable anteriorly to reinforce the vaginal support. Should the levator ani be found to be torn, which is not usual, the divided ends should be pulled well forward, carefully isolated and repaired by buried sutures. With the union of the levator ani muscles the rectum, anus and vagina will be found to ascend to a higher position in the pelvis, and to be carried forward toward the pubis (Fig. 4).

The fifth step of the operation consists in the suturing of the inferior fascial plane to reinforce the muscular support. The outer edges of the incision through which the levator ani muscles have been brought are united in the median line by continuous, interrupted, mattress or imbricating sutures of No. 1 chromic catgut, as may seem necessary in the particular case. This support, which includes the posterior part of the urogenital trigone, affects the layers of the triangular ligament and the deep transversus perinei muscle, and posteriorly serves to increase the tension on the transversus perinei muscle. To obliterate any dead space some of the sutures may catch the under-lying muscle (Fig. 5).

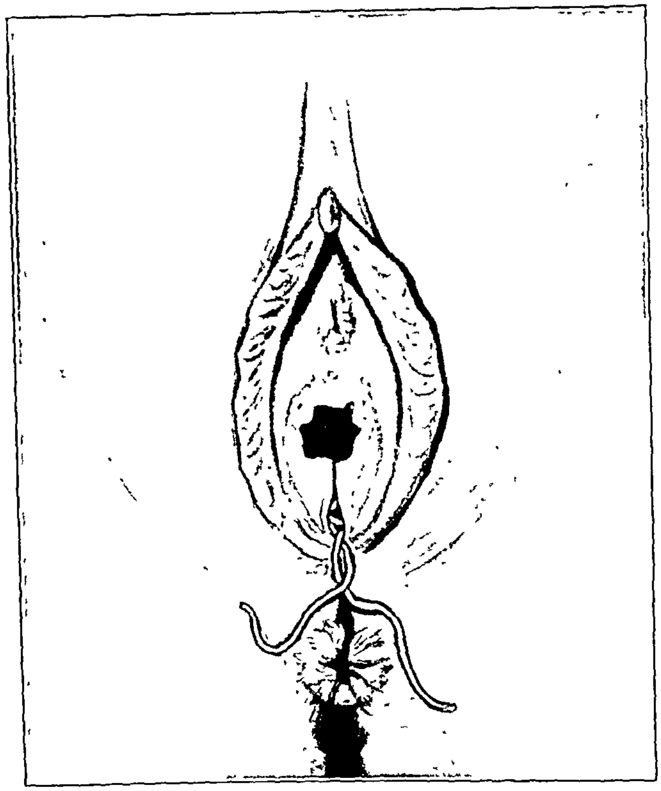

Fig. 6—Step 6: The unfinished suture of step three is now continued under the cutaneous edges of the incision until the fourchette is reached, where the two ends of this suture are tied and the knot permitted to sink into the wound out of sight, the ends being cut short. The tying of the ends of this first suture binds the various structures—vagina, muscle, fascia and skin—together and prevents the formation of dead spaces. This elevation and reinforcement of sphincter ani is indicated.

The sixth and final step of the operation consists in completing suture number one which after completing the submucous union of the vagina is continued posteriorly under the skin uniting the subcutaneous and Colles fascia until the posterior portion of the incision is reached. The two ends of suture number one are then tied, binding together the various structures that have been united; the knot is permitted to sink under the skin, the ends being cut short (Fig. 6).

Thus there has been built up in layers a perineum consisting of united mucosa, muscle, fascia and skin. All the sutures being buried and the layers bound together compactly there are practically no dead spaces. A small strip of iodoform gauze introduced into the vagina is permitted to hang down over the skin sufficiently to cover the skin incision. This serves as a guide to the nurse in catheterizing and protects the incision. The catheter is used for two days after which the gauze is removed and if desirable a daily douche is given. The patient may sit up on the tenth day, and cautiously resume her duties after two weeks.

2033 Walnut Street.

THE TREATMENT OF SCOLIOSIS

ARTHUR STEINDLER, M.D.
Assistant Orthopedic Surgeon to the Home for Destitute and Crippled Children
CHICAGO

In treating scoliosis by means of orthopedic corsets I think that it is difficult to meet the two most important requirements, the one of giving a reliable and uniform support to a deformed spine, the position of which has been improved by mechanic or gymnastic treatment, and the other of exerting a correcting influence on certain parts of the body by means of the orthopedic corset itself.

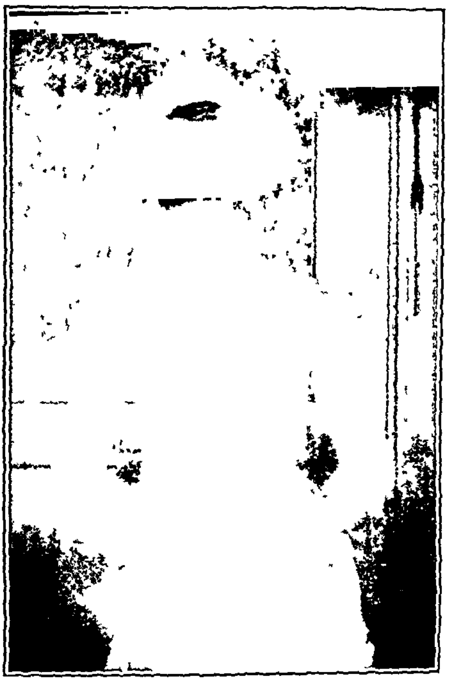

Fig. 1.—Patient with scoliosis.

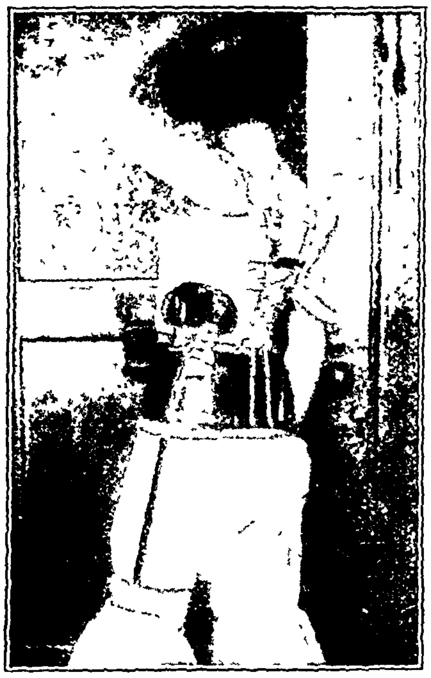

Fig. 2.—Same patient as in Fig. 1, with orthopedic corset.

A number of good and practical corsets have been devised, giving satisfactory results to a considerable extent. While the Hessing corsets furnish only a thorough support to the spine, a good correcting corset has been described lately by Bradford, the correcting force being exerted by means of shoulder straps, circular transverse springs and a swinging upright for pressure on the neck. But it seems to me that in cases in which there is a considerable shifting of the body to one side, for instance, in which the lumbar part of the spine is primarily involved in the curvature, not enough hold may be gained for correction and the maintenance of the corrected position of the spine.

The sideward shifting of the body will always result in a lifting of the pelvic belt of the corset from the crista ilei of the opposite side, unless its position there is otherwise secured. In order to obtain this advantage, and, on the other hand, to exert some correction on the costal prominence, I attached to the pelvic belt on the healthy side a thigh-piece connected with a hinge and embracing the leg by means of a padded ring right above the knee.

On the side of the scoliosis a pad corresponding to the costal prominence articulates by means of a hinged steel piece with the pelvic belt, a similar pad being attached on the corresponding anterior costal prominence of the opposite side.

On both pads a considerable amount of elastic pressure is secured by a couple of springs. It is easily to be seen that, if the attachment to the leg is given an outward bent and then fastened closely above the knee, an opposite movement of the pad will result in bringing the sideward shifted body over the median line to the other side.

Two uprights in the back on both sides of the spinous processes give the body rest and allow the shoulders to be pulled back by means of shoulder-straps (Figs. 1, 2, 3 and 4).

Both patients with right dorsal lateral curvature, shown in the photographs, were given a previous mechanical treatment of several months. It consisted in gymnastic exercises, manual redressement, especially directed toward the lumbar curvature and the detorsion of the scoliosis, and some massage.

After I had convinced myself that the lumbar portion of the spine had gained a sufficient amount of flexibility I had the patient wear the contrivance, as described above, while the gymnastic exercises were being continued.

The considerations which led me to pursue this mode of treatment are, briefly, the following:

I have to a great extent given up mere extension as a method of correcting curvature, because of the fact that the detorsion of the body would not keep pace with the extension of the spine thus obtained, the formation of flail intervertebral joints and increased flabbiness of the spine being the result. Most of my attention is directed toward the detorsion of the chest and the mobilization of the lumbar part of the spine, which, as a rule, is the last to maintain a certain degree of flexibility, when the dorsal part of the spine is already hopelessly fixed. Then, if the sideward displaced body is shifted to the other side by means of the apparatus and an over-correction exerted, the upper part of the spine will have to respond with a self-correcting secondary curvature to the side of the disease in order to regain the median line.

Thus a considerable improvement of the deformity is caused under the influence of weight-bearing and without causing flail joints, while other methods try to overcome the influence of weight-bearing and result in the establishment of loose joints.

In cases treated after Schanz' method (double extension from neck and ankle and application of correcting plaster-of-Paris jacket, to be changed every four to five days under similar precautions) I have also seen the straightened spine assume the form of triple scoliosis in spite of much care in applying well-fitting casts, the deformity, however, being considerably improved. It seems that the flabby spine came to a rest in this form of deviation if it was forced by the jacket to keep as near as possible to the median line.

The discomfort of the patient when treated with high-reaching casts and corsets has sometimes proved an unsurmountable obstacle in older girls of delicate and chlorotic constitution.

The principle of using the hip joint and the motion of the leg for correction of deformities of the body might prove useful also in deformities other than lateral curvature. As far back as 1867 leg attachments have been used for corsets, first by Wales, later by Lorinser and Biondetti.

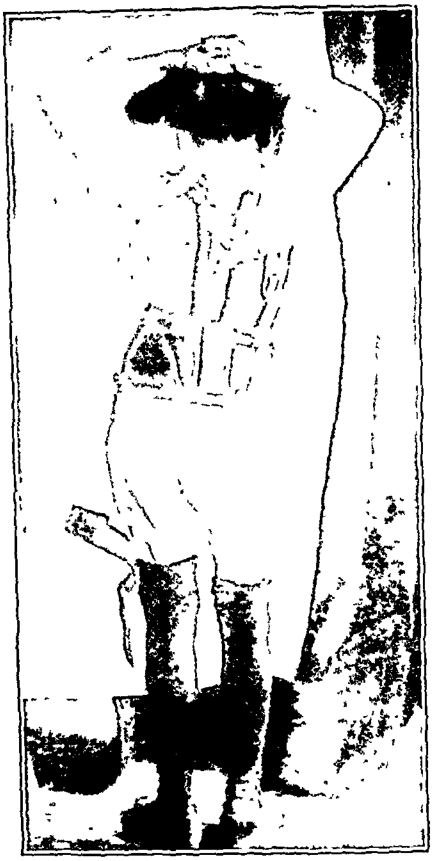

Fig 3.—Patient wearing scoliosis corset, with leg-brace unfastened.

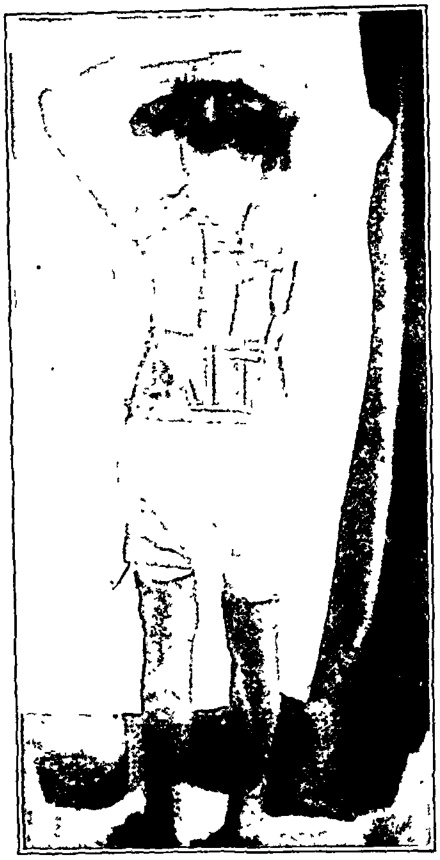

Fig. 4.—Patient wearing scoliosis corset, with leg-brace fastened.

Clinical Notes

INSTRUMENT FOR APPLYING OINTMENT TO DRESSINGS AND WOUNDS

W. LAWSON THORNTON, M.D.
BALTIMORE

The accompanying illustrations show a simple contrivance for applying ointment to dressings and wounds. The instrument is contrived from an all-metal syringe.

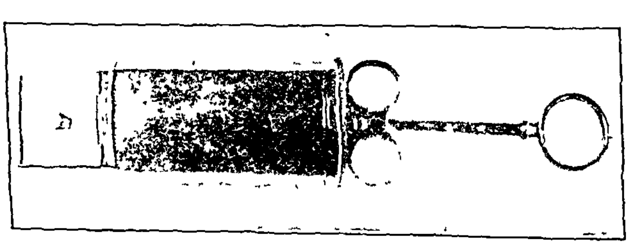

Fig. 1.—Instrument for applying ointment.

The nozzle of the syringe is replaced by a wedge-shaped opening, through which the ointment is expressed in a ribbon-like film. By adjusting the sliding-plate (Fig. 1) the film may be made as thin or as thick as is desired, or the opening may be completely closed. By inverting the sliding plate a narrow film is obtained.

The instrument may be filled after removing the metal piston or by aspirating melted ointment. When the instrument is filled it may be boiled or placed in the sterilizer.

The ointment may be applied to the dressing as is shown in Figure 2, or directly to the wound. If the ointment is applied to the surface of the wound, the instrument is held above the surface and the ointment forced out in a ribbon which applies itself smoothly to the surface of the wound.

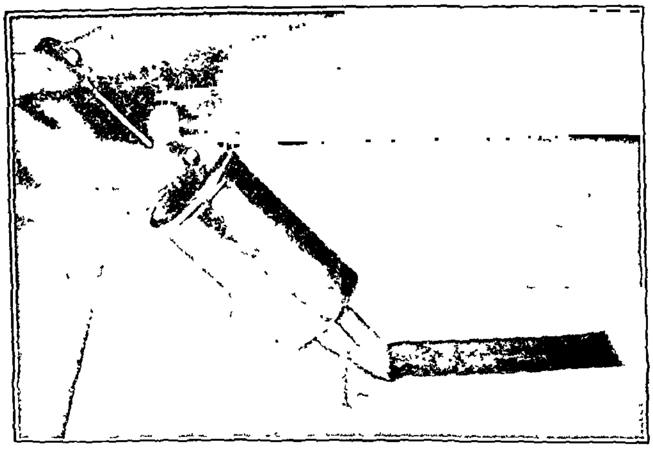

Fig. 2.—Method of applying ointment to dressings.

The instrument has the following advantages:

The ointment is applied in a smooth, even film of any desired thickness, and a neat dressing is obtained.

The ointment is kept sterile and ever ready for use.

A dressing can be made conveniently and rapidly, and the ointment is economized by this method.

The instrument is made in various sizes and can be bought for little more than the cost of a metal syringe. It is manufactured by Willms Instrument Company of Baltimore.

A CASE OF CONGENITAL FALSE DIAPHRAGMATIC HERNIA*

H. S. MARTLAND, M.D.
NEWARK, N. J.

I herewith report the clinical history and autopsy findings of a man who died as the result of a congenital deficiency in the central tendon of the diaphragm, which opening connected directly with the pericardial cavity, the heart at autopsy being surrounded by the entire transverse colon and the great omentum:

History.—The patient was 70 years of age, and was admitted to the Newark City Hospital in December, suffering from intense dyspnea, which he had had for one week. His family and personal history, except for the fact that he was never confined to his bed on account of sickness, throws no light on the condition to be described.

Examination.—On admission to the hospital the patient presented the clinical picture of an acute right heart dilatation, being markedly cyanotic and dyspneic, with a rapid, irregular and feeble pulse. Aside from these symptoms there was little in his physical examination of much interest. The apical cardiac impulse could not be seen or felt, but was heard best in the sixth intercostal space in the left mid-clavicular line. The heart sounds were weak and distant, no murmurs being heard. Examination of the lungs revealed crepitant and subcrepitant râles over both bases posteriorly. The abdomen was negative. Examination of the urine showed a moderate amount of albumen, a few small hyaline and granular casts, with a specific gravity of 1.016.

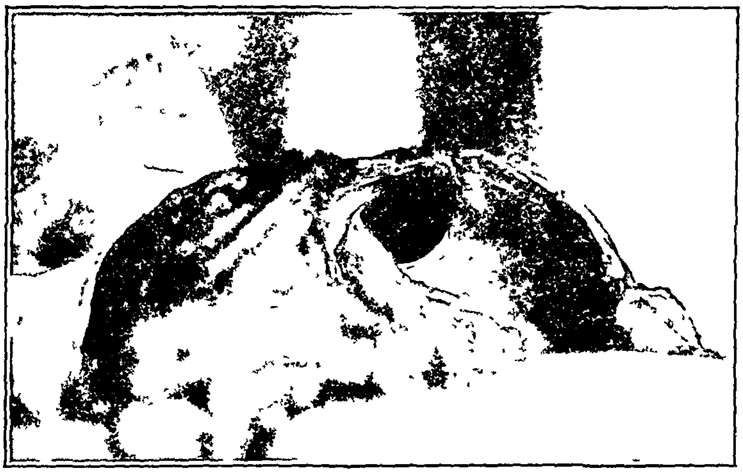

Fig. 1.—Congenital false diaphragmatic hernia; view of under surface of the diaphragm with the opening.

The treatment consisted of the usual cardiac stimulants, but the patient's condition did not improve and he died seventeen hours after admission.

Autopsy.—When the abdomen was opened, the small intestines occupied their usual position; their serosa showed, in three places, at intervals of about 20 to 30 cm., large injected vessels and a reddened and thickened peritoneum. These areas were practically all in the jejunum, and I took them to be patches of chronic hemorrhagic peritonitis. The transverse colon and great omentum were conspicuous by their absence. The rest of the abdominal viscera were all in their normal positions. The right dome of the diaphragm reached the fourth interspace; the left was opposite the fifth rib. Just above the liver, the hand could be passed through a large, oval opening, 5 by 6 cm., in diameter, directly into the pericardial cavity, where the heart was felt surrounded by the distended transverse colon and the great omentum. Figure 1 is from a photograph taken at the autopsy, showing the under surface of the diaphragm with the opening. On gently dragging on the splenic flexure of the colon, the hernia could be easily reduced as far as the middle of the transverse mesocolon, where there was a small area of gastrocolic omentum adherent to the right free edge of the opening. The stomach was in the abdominal cavity, somewhat turned, a portion of its posterior surface presenting, its greater curvature just entering the hernial opening.

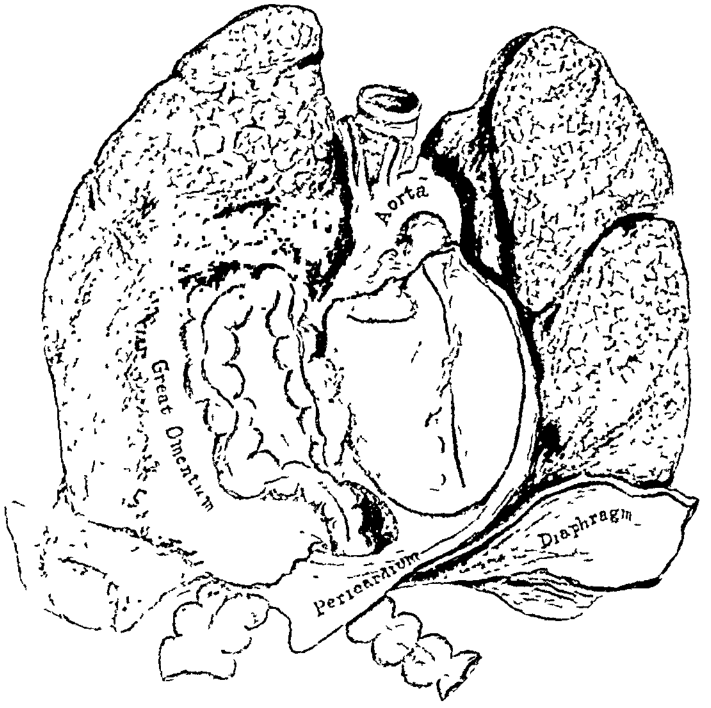

Fig 2.—Rough drawing of thoracic viscera, showing position of colon in the pericardial cavity

When the pericardium was opened the parietal layer was found diffusely, but only moderately, thickened. The right heart was dilated, the left ventricle firmly contracted. The hernial opening presented rounded borders, and the peritoneum of the under surface of the diaphragm was continuous with the parietal pericardium. *There was no hernial sac.* Nor was there evidence found either of a former suppurative pericarditis, empyema of pleural cavities, suppurative hepatitis, subphrenic abscess, ulcer of the stomach, or neoplastic growth near diaphragm.

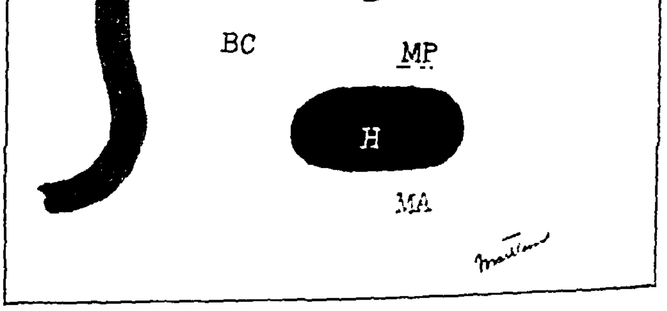

Fig 3.—Transverse section of embryo at second week.

The remainder of the autopsy showed only the *ordinary* visceral changes of senility. The *left adrenal*, however, presented a *cortical adenoma* about 25 mm. in diameter.

I concluded, therefore, that death had been due to cardiac embarrassment, due either to a slipping of too large a portion of intestine, or to gaseous dilatation of the same, through a congenital deficiency of the diaphragm in this position.

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* From the Pathological Laboratory of the Newark City Hospital.

* Reported at meeting of New York Pathological Society, Jan. 13, 1909.

From the chronic inflammation seen in the small intestine, it seems probable that this portion of intestine also had at times slipped through the hernial opening.

EXPLANATION

To explain this congenital deficiency on an embryologic basis is, I fear, rather difficult, although we may include it under the theory of diaphragmatic hernia in general, namely, that the partition subdividing the primitive body cavity into pleuropericardial and peritoneal compartments is completed by fusion of segments (septum transversum, pillars of Uskow), which for a time are separate. Arrested development or delayed union therefore results in abnormal clefts, and it is evident that various degrees of developmental arrest or delayed union may produce corresponding imperfections in the future diaphragm.[1] I think that in the case in question such an arrest took place about the fifth week of embryonal life. It seems also that the case is, more strictly speaking, a teratologic rather than an embryologic fault, and one which is closely allied to a beginning subthoracic ectopia cordis.

I give a rough and brief description of the development of the diaphragm. Let Figure 3 represent a transverse section of a human embryo at about the second week. Let H represent the primitive heart formed by the coalescence of two tubes produced in the splanchnic mesoderm. It will be seen that the heart in this stage lies embedded in the ventral mesenteric fold. As the anterior body wall is completed the heart becomes connected with the body wall by a portion of ventral mesentery known as the mesocardium anterius (MA), while that portion of mesentery passing from the heart to the primitive gut tube is called the mesocardium posterius (MP). The space between the heart and the body wall (BC) is the celom or body cavity.

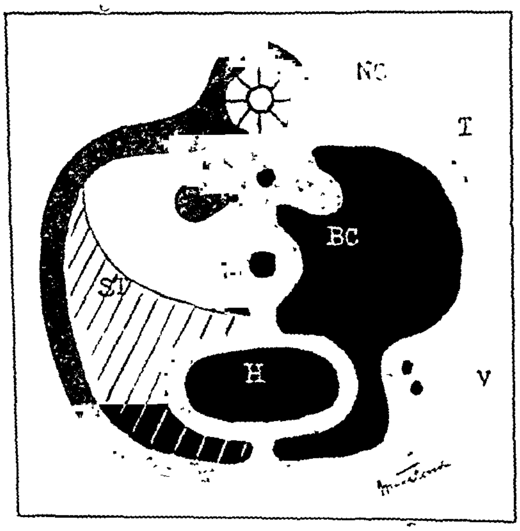

Fig. 4.—Transverse section of embryo, showing the septum transversum.

Figure 4 represents the next steps in development, which are as follows: Lying in the ventral and lateral aspects of the body wall are the vitelline and umbilical veins (V). As these veins diverge to reach the heart, they carry with them the parietal layer of mesoderm in which they are imbedded, forming on each side a fold that projects mesally and dorsally, the two folds approaching and finally meeting with the ventral mesentery in the median line. This mass is the septum transversum (ST), and its appearance is the first indication of the separation of the body cavity into pericardiothoracic and abdominal cavities. The septum transversum is the anlage of the future diaphragm. Near the dorsal wall of the trunk, on each side of the intestine and its mesentery, the septum is wanting, and thus the two spaces communicate with each other by openings which are known as the thoracic prolongations of the abdominal cavity.

At this stage, then, the four great serous sacs of the body, the two pleural, the pericardial, and the abdominal, are indicated, but are still in free communciation with each other. The pericardial cavity is the first one of these to be closed off, and this is due mainly to the development of a vertical septum, the appearance of which is also dependent on a large vein, namely, the duct of Cuvier, formed in the upper thorax, by the confluence of the cardinal and jugular veins.

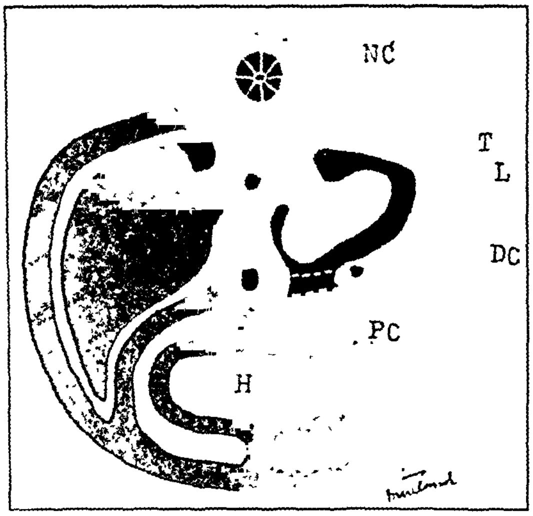

Fig. 5.—Transverse section of embryo, showing formation of pleural and pericardial cavities.

It is this inwardly projecting vertical fold of serous membrane containing the duct of Cuvier (DC, Fig. 5), which constitutes the pleuropericardial fold and the appearance of which initiates the division of the thoracic cavity into two spaces, one for the heart and one for the lungs. This fold continues to grow toward the median line of the body until it meets the mesocardium posterius, with which it fuses, thus completing the pericardial sac and isolating it from the pleural spaces.

The lungs, which until now have occupied a very insignificant place (L), lying posterior to the heart, now develop very rapidly, pushing forward and delimiting the pleural and abdominal cavities. In the case in question, through some developmental arrest, the septum transversum has failed to close the communication between the pericardium and the peritoneal cavities. This separation should be complete about the fifth week of embryonal life.

The pleural cavities are finally separated from the abdominal cavity by the growth of two dorsolateral folds, the so-called pillars of Uskow; these pillars also projecting forward unite with the earlier formed septum transversum to complete the diaphragm at about the sixth to seventh week of embryonal life.[2]

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[1] Piersol, George A.: Teratology, Reference Handbook of the Medical Sciences.

[2] Heisler: Text-Book of Embryology.

DIAPHRAGMATIC HERNIAS

There are two general types of diaphragmatic hernias, namely, the acquired and the congenital.

In a total of 276 reports of cases compiled by Lacher,[3] 117 were congenital; the remaining 159 were acquired; of Leichtenstein's 252 cases,[4] 224 were acquired, while 28 were congenital.

Acquired hernia, or rupture of the diaphragm, is therefore the more common type. The etiologic factors are trauma and pathologic perforations due to suppuration around the diaphragm.

Congenital hernia may be subdivided into false and true hernia:

1. False hernia, in which the displaced viscera are not covered by a hernial sac, is more frequent than the true form; in 117 cases, 92 were of this variety. They are more frequent on the left side, and in the muscular rather than the tendinous portions of the diaphragm. All of these were into the pleural cavities. The case which I report is a type of false hernia very rarely encountered, namely, a hernia directly into the pericardial cavity and having no communication with the pleural sacs.

2. True hernia, in which the abdominal organs are covered by a hernial sac of diaphragm, or peritoneum, or both, is quite rare.

I report this case on account of its great rarity, as I am unable in a fairly careful search of the literature to find mention of any similar case. It is also of interest because of the age the individual reached.

I thank Dr. Daniel Elliott, coroner's physician, and Dr. H. F. Cook, on whose service the patient died, for the privilege of performing autopsy and for the clinical history.

MYXEDEMA: REPORT OF A CASE

SAMUEL E. SIMMONS, A.B., M.D.

SACRAMENTO, CALIF.

Patient.—C. L. was born March, 1870, of American parents, on a Yuba county ranch. His paternal grandfather, from Yorkshire, Eng., lost his life by drowning; his paternal grandmother died at 84 of senility; his maternal grandfather and grandmother died at 84 and 89, respectively, presumably of senility. The patient's father died at 54 of "spinal paralysis" after several years' invalidism. His mother, born in Baltimore, died at 58 of sarcoma of the ileum. He has two brothers living; one is well, the other suffers occasionally from "petit mal;" one brother died at nine years of age, the result of epilepsy of traumatic origin; one sister is alive and apparently normal in every respect.

History.—The patient had measles and whooping cough in childhood. He attended school until he was 12 years of age, when he was vaccinated; the lesion caused thereby refused to heal for six months, according to the family; and they attributed his subsequent illness to this. He left school, having previously been considered a bright child; his color changed, and he lost interest in the sports of boys of an equal age. He preferred to sit quietly, and when read to would comprehend about three words in ten; he stopped growing, and, on account of the color and a peculiar puffiness, was treated for "dropsy." By his family and friends his condition was considered to be simply one of "stunted growth." His mother noted at this time that if she told him to stay in one place until her return, no matter if she stayed away the entire day, she would always find that he had remained in the place and position in which she left him.

Examination.—At office, Dec. 20, 1906: The patient's age was 36; height, 54 inches; weight, 74 pounds; pulse 50, poor volume and tension; temperature, taken with three different clinical thermometers at this visit, was 94. The hair on the head was scanty and coarse; the hair on the eyebrows, hardly more than lanugo; the entire face, large and expressionless; the upper lids, swollen and baggy; the lower lids, less so, but did not pit on pressure. The skin was dry and harsh and showed a color between that of jaundice and that of pernicious anemia; the sclera clear. The patient stated that he never perspired. The nose was broad and flat; the lips thick; no hair noted; the patient never shaved. The mucous membranes were pale; the tongue normal. The voice was puerile; the

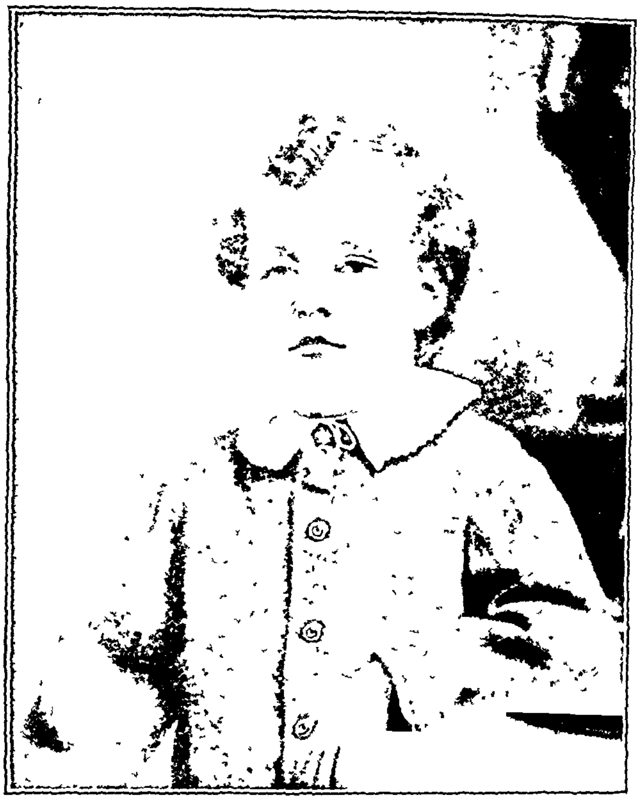

Fig. 1.—Patient at 5 years.

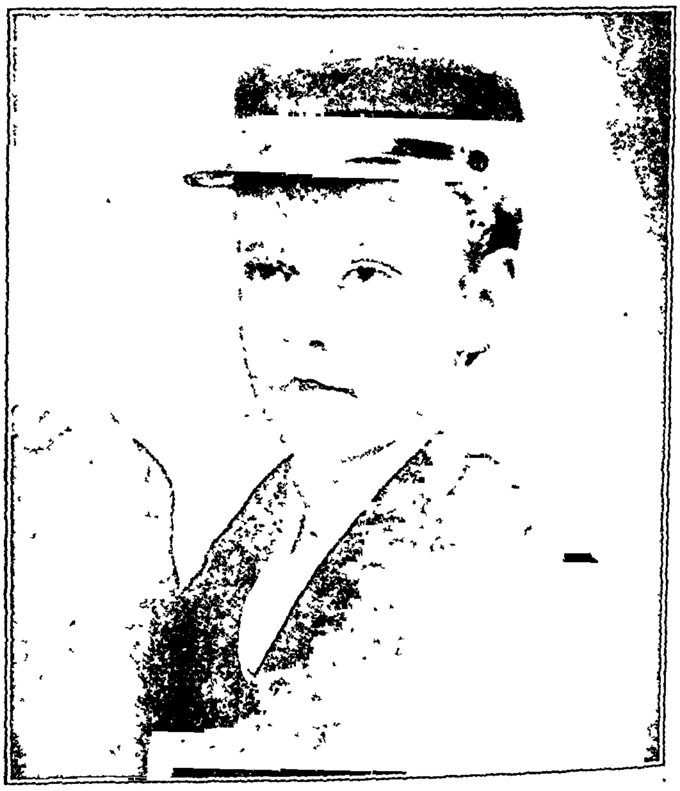

Fig. 2.—Patient at 10 years.

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[3] Lacher: Ueber Zwerchfellshernien. Arch. f. klin. Med., 1880-1881, xxvii, 268.

[4] Leichtenstein: Ziemssen's Cyclopedia of Medicine, vii.

thyroid gland could not be felt; the sublingual region, also the supraclavicular and infraclavicular spaces, were filled with flattened broad masses, of a consistency resembling "dairy cheese." Everywhere the skin seemed dry and adherent to the underlying tissue. The heart and lungs were normal; the abdomen negative; the pubic hair absent; the sexual organs fairly well developed. The specific gravity of the urine, 1018; no albumin or sugar. The hands were puffy and chubby. The blood was not examined at this time. The patient was not observant; answered questions slowly and with hesitation; did not care to study or to read; occupied himself with very light "chores" around a country place. He had no headaches; his appetite was variable.

Treatment.—The diagnosis was myxedema, and the treatment for this condition was at once instituted. Armour's thyroid tablets, each of which is the equivalent of two grains of the desiccated gland, or Burroughs and Wellcome's tablets, each of which is equivalent to five grains of the fresh healthy gland of the sheep, were administered throughout the course of the disease. Sometimes one preparation was used, sometimes the other, with no difference noted in the therapeutic potency. The treatment was begun with Armour's thyroid tablets: two a day; at the end of four weeks, the patient was taking four tablets a day.

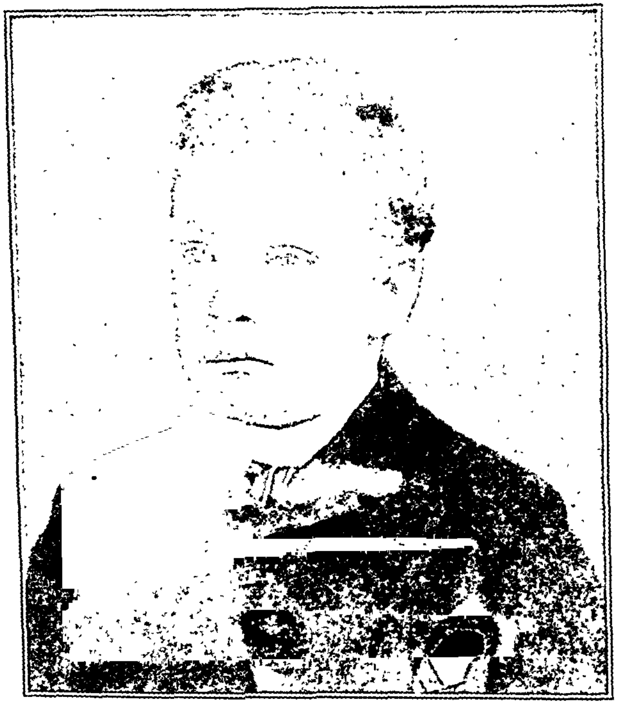

Fig. 3.—Patient at 15 years (Note incipient myxedema.)

Later History.—On Jan. 28, 1907, five weeks after beginning treatment, the patient reported again. The change in his personal appearance, physiognomy and mentality, was most striking. The pulse was 80; temperature but slightly below normal. A considerable increase of the hair on the head was noted. The voice began to "break," like that of a lad at puberty; the voice had previously been similar in pitch to that commonly found in boys 8 or 10 years old. He felt the cold much less and noticed a change of some sort himself; he said that it felt as if it all were a new world to him. Thyroid treatment was still urged and at next visit, Feb. 20, 1907, the patient had an abundant growth of hair; perspired on exertion, wanted to read and play cards, and when opportunity presented "caddied" on a neighboring golf-course. His color was greatly improved; weight was stationary. From being slothful and indolent, with his greatest usefulness put to driving cows to pasture and home again, the patient had become, in less than three months, very ambitious and worked as an errand-boy in a drug store; the manager stated he was the brightest boy he ever had.

Two years have now elapsed, and save in the initial treatment by the thyroid extract (which lasted two months in continuous dosage), the patient was never under treatment longer than four weeks at one time. The longest respite from thyroid therapy was for a period extending from May, 1907, to October of same year, a period of five months, when I was in Europe; at the end of this time some of the old symptoms were again in evidence, namely, characteristic color, loss of expression, swelling and puffiness under the eyes; the mentality, however, continued good. The patient himself wanted to be placed under treatment again. I think that in the future the patient may be reasonably left to his own discretion in regard to treatment, for he always knows when it is

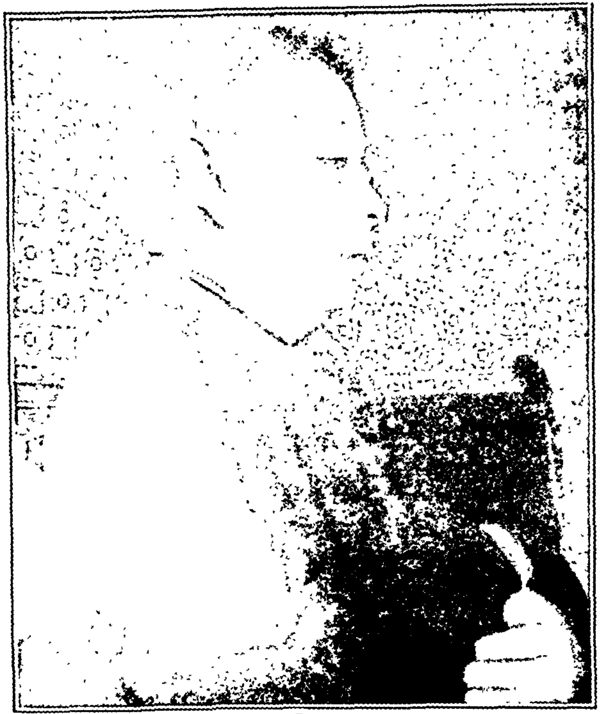

Fig. 4.—Patient at 36 years, just before beginning thyroid treatment

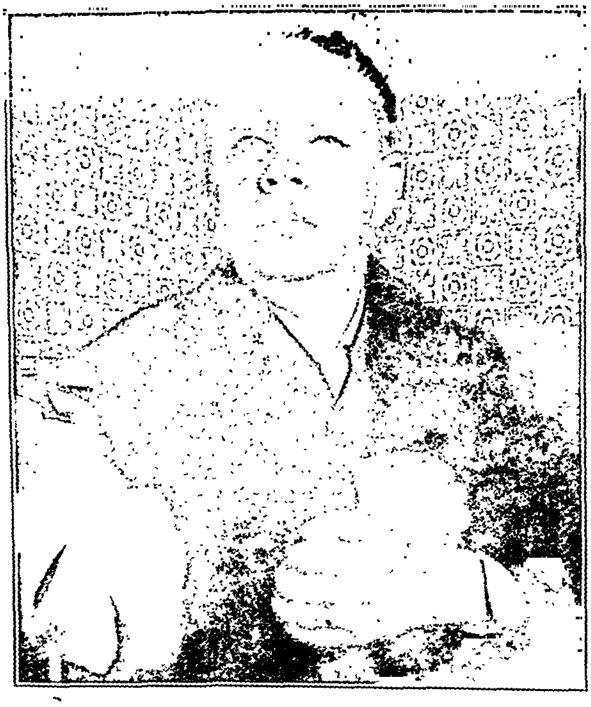

Fig. 5.—Another view of patient; same time as in Figure 4.

indicated. An interesting feature of the case, aside from its rarity in these parts, is that if the patient takes more than three tablets a day, now that a cure is established, or continues the treatment for more than three weeks, he soon shows the symptoms of exopthalmic goiter, namely, nervousness, sleeplessness, slight exopthalmos, nausea, sometimes vomiting and general weakness.

Fig. 6.—Patient six months after use of thyroid.

212 J Street.

A CORRECTOR FOR WEAKENED FEET FOR USE AT NIGHT

J. M. BERRY, M.D.

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The weakness and disability of the foot which culminates in the deformity commonly known as flatfoot is progressive in character. In the earliest stage of the trouble there is present simply a weakness or strain, which causes the foot to assume a weakened position favoring additional strain. The weakened position is later present constantly during activity and soon becomes habitual, and from that it is only a short step to permanent weakness and deformity.

The various stages can be enumerated as follows: (1) weakness and strain, (2) weakened position favoring more strain, (3) weak position in use, (4) habitual weak position, (5) permanent weak and deformed position.

The characteristic position of a weakened foot is the pronated or abducted position. In this position the front part of the foot is turned outward through the midtarsal joint with consequent lowering and weakening of the inner longitudinal arch. There is an apparent rolling inward and downward of the ankle, and the line of body weight drawn through the center of the knee and ankle, when prolonged over the foot, is found to be to the inner side of its normal position. All these elements of the pronated position are increased during weight bearing and activity, and the last result of progressive weakness is the pes valgus form of clubfoot.

In the early stages of a weakened foot the weak position is assumed during weight bearing; but later the foot when at rest and relaxed, with all weight removed, falls naturally into the weak position. In later stages, the weak position becomes permanent, actual structural deformity occurs and the faulty position can be corrected only by forcible manipulation or operation.

In the treatment of weakened conditions of the feet, attention is usually directed to the use of proper braces and shoes combined with manipulation and massage. The principles of such treatment are that the brace will cause the foot to assume a proper attitude, throwing the weight of the body onto the outer side of the foot, where it belongs, while the proper shoe allows the foot to be held in a position where it is least subject to strain and can work most efficiently. Manipulation, massage, vibration, etc., limber up the foot, relieve pain and soreness and give strength.

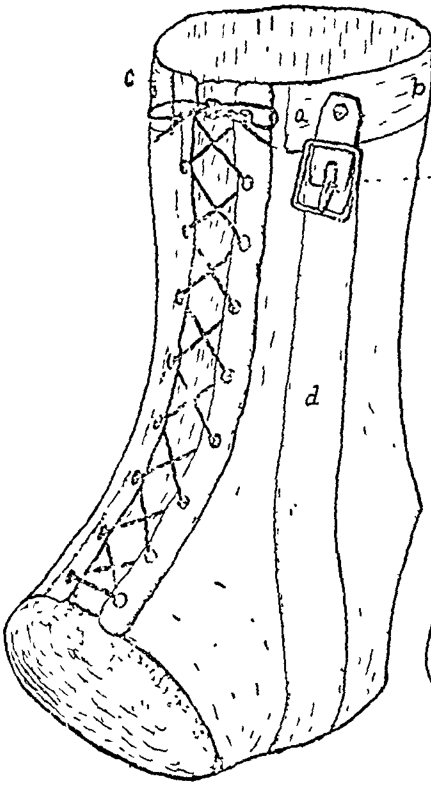

Fig 1.

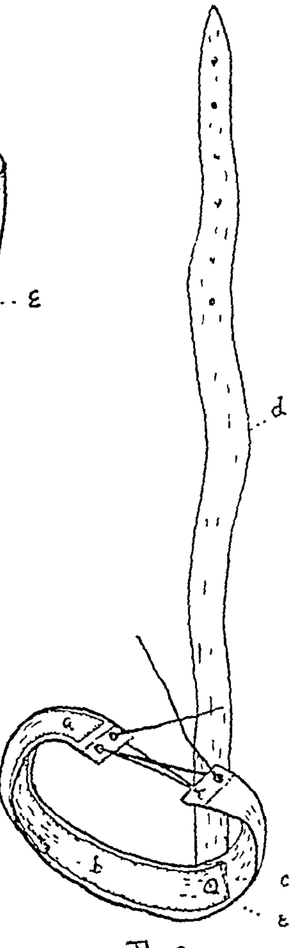

Fig 2.

Fig. 1.—An ankle support of soft leather, cut away at the heel and laced up the front, with a band (a, b, c) of thin spring brass, leather covered, encircling the top of the support. A strip of thin spring brass (d), leather covered, is riveted to and extends from one end of the encircling band down the side of the ankle under the heel and up the other side, fastening to the other end of the encircling band. A buckle (e) is riveted through the two pieces of brass and the ankle support.

Fig. 2.—A band to encircle the waist of the foot. For the adult foot this should be 1¼ in. wide. It is made to lace over the top of the foot. A strap (d) is riveted to the encircling band at e, corresponding to the inner and under surface of the foot.

One factor, however, is often neglected, but is of great importance in all orthopedic work in connection with deformities. I refer to the influence of position during sleep. This is of especial importance in children in whom there is the added influence of growth.

As has been said, the abducted or pronated position of the foot is the weak position, and in practically all cases in which the individual has a weakened foot it will be found that the foot falls into a pronated position during sleep. The foot may have been kept in a correct position during the day by braces and shoes, but during sleep, which is usually about one-third of the time, the foot is allowed to assume the pronated or abducted position, and it can easily be understood what an influence this must have on treatment.

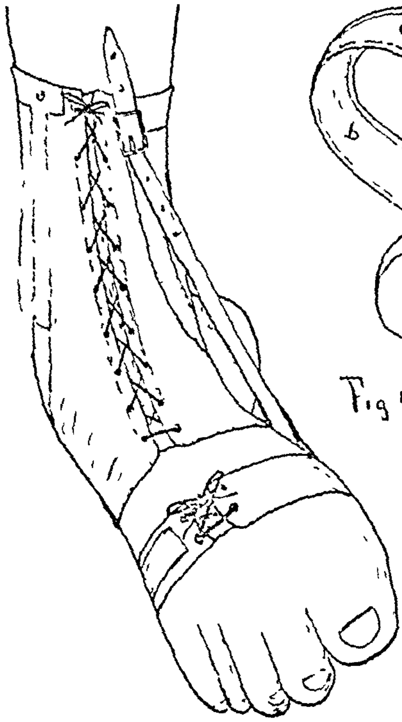

Fig3

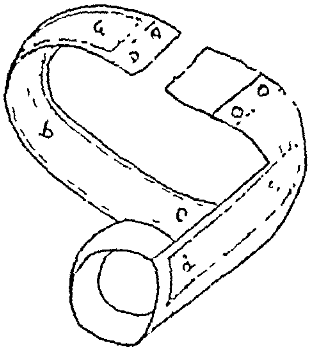

Fig 4.

Fig 3.—The strap (d) is to fasten into the buckle (e) of the ankle support, and, when tightened draws the foot into a flexed and adducted position In some cases it may be of advantage to incorporate a piece of elastic webbing into the strap The strips of spring brass fastened to the apparatus b their leather covering serve to stiffen it and cause the pull of the apparatus to be applied at the right points

Fig 4.—A modification of the waist band that can be used when hallux valgus is present The band (a, b c) around the waist of the foot is as in Figures 1 and 2 but there is a prolongation (d, e), along the inner side of the big toe This prolongation is strengthened by a strip of spring brass and corrective force can be brought to bear on the toe by bending this strip

In order to overcome this faulty position during sleep and to aid the process of growth, the apparatus, outline drawings of which are here shown, has been devised.

By a slight change in the apparatus it can be used to great advantage as a night support for clubfeet This is done by simply changing the strap and buckle to the outer side. Tightening the strap will now tend to hold the foot in a flexed, pronated or abducted position, just the reverse of the position in ordinary equinovarus.

Hair Dye Poisoning.—Dr. J. H. Mackay, Norfolk, Neb., reports a case in which the eruption extended beyond the scalp to the face shoulders and arms, with itching, burning, redness and puffing The eruption was similar to ivy poisoning, but with larger individual pimples There were constitutional symptoms suggestive of arsenic poisoning. The diagnosis was confirmed by three attacks during a period of six months, concurrent with the application to the hair of "Mrs. Potter's Pure Walnut Juice."

TWO CASES OF SUBPHRENIC ABSCESS

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The following case is reported because we believe, that, even in the face of a rapidly increasing literature, it is appropriate to draw attention to the not infrequent condition of subphrenic abscess following appendicitis and to the condition of empyema and lung abscess following subphrenic abscess, even when an appendiceal abscess is drained and occasionally after the removal of a non-suppurating appendix.

Patient—W P, aged 26 (family history immaterial), was operated on at Omaha for appendicitis, two years before the date of first examination He believed it only a drainage operation. A year and a half later an abscess opened externally in the right iliac region The patient was shortly removed to a hospital, where two attempts were made to close the resulting fistula. At this time there was a swelling of the lower part of the chest on the right side Later he began suddenly to cough and to expectorate large quantities (two to four pints) of very foul pus, the swelling in the liver region gradually subsiding.

Examination—March 23, 1909: Patient admitted to the hospital, emaciated, dyspneic, with rapid breathing, no expansion of the right thorax Temperature, 102 F.; pulse 110; bulging of the right thorax, dulness extending up into the axillary space, area of dulness changing with posture. Amphoric breathing and other cavity signs of right lung.

Diagnosis—In the order of occurrence: Appendicitis, subphrenic abscess, empyema, lung abscess

Operation—March 23, under ether, which the patient took poorly, resection of sixth rib was done, evacuating about one quart of pus, breathing was easier. By a linear incision in outer border of right rectus, we opened the subphrenic space and demonstrated a sinus leading from the appendix to the right lung through which air escaped in breathing as it also did in the thoracic opening, drainage of openings was effected.

Postoperative History—At no time after operation was there any drainage through the old sinuses in the appendiceal region On the second day the drainage was removed from the subphrenic space, with closure of the wound twelve days after operation The thoracic discharges gradually lessened until on April 7 the discharge had ceased and the wound about closed The patient was up, gaining in weight; his cough was negligible

The next case is reported because of the long train of symptoms, and widely separated septic conditions that may follow a seemingly mild and non-suppurative appendicitis after apparent recovery; also because of the obscure symptoms present due to the small amount of pus and its many locations; and because of the fact that the pus must have been present for a long time and the tissue reactions excellent to produce such a completely organized pus

Patient—W F, male, aged 28 (family history not obtained, early history negligible), in 1904 worked in the tropics where he had a "fever" which left him with large stellate scars on the back. He complained of not having felt well for some time before the examination He could remember no very severe pain but some colic

Examination—March 18, 1909: The patient was a muscular male, not markedly emaciated, with face flushed, rapid breathing, rapid pulse, temperature 102 F, an area of consolidation in the left upper lobe of lung, and no marked signs of extensive pneumonia The sputum contained Friendlander's bacillus and numerous cocci, it was slightly blood-stained. We made a diagnosis of pneumonia.

Course of Disease—The patient next morning was removed to the hospital, at which time his temperature was 95 F., pulse 110; the other conditions were unchanged. The patient had had no chills and gave no history of chills but had chilly sensations. During the next day he complained of severe pain in the diaphragmatic area on the left side. Next day the patient looked markedly worse; the septic appearance was increased. There was at this time (March 24) some dulness and some pain over the gall bladder, and appendix, general rigidity of the abdomen, and much tenderness over the eighth, ninth and tenth ribs left laterally. Blood count at this time gave 37,000 white blood cells and 95 per cent. polynuclears. The urine was reduced in quantity; the urea output markedly reduced; very large percentage of albumin, considerable bile. The sputum was unchanged. On more careful examination of the chest it was concluded that the left lung was collapsed; there was tympany to the third rib, dulness above, metallic tinkling and amphoric breathing over the base. The diagnosis was revised to disease of either gall bladder or appendix, subphrenic abscess and pyopneumothorax.

First Operation.—Under ether, March 22, the abdomen was opened; the gall bladder was found normal, and the appendix inflamed. There were recent and old adhesions and general peritonitis; the omentum was glued to the parietal wall. No abscess was located. There was some serosanguineous fluid in the pelvis. The appendix was removed and the wound closed. Aspiration of the thorax gave negative results, so the chest was not opened.

Second Operation.—The next day, the septic symptoms becoming worse, it was deemed proper to explore the left subphrenic space and left chest further. The patient being unfit for a general anesthetic, a diagonal incision was made beneath the eighth, ninth and tenth cartilages. The subphrenic spaces were explored but no pus cavity found. Aspiration of the chest showed a few drops of liquid pus. A rib was resected and two drams of thin, odorless pus was turned out.

The patient died next morning at 10 a. m.

Autopsy.—The left lung was collapsed; there was an area of healed tuberculosis in the left apex; no free pus in the pleura, but the lung covered with organized pus so adherent that it was with difficulty removed; the same condition existed between the lobes. There was pus of the same character in the anterior and middle mediastinal spaces; the mediastinal glands were enlarged but not suppurating. The pericardium was adherent and purulent with the same kind of pus; the right lung was about normal, but beneath it, lying on the diaphragm, was a small amount of organized pus. The left subphrenic space contained two or three drams of thick organized gelatinous pus, as did the right subphrenic space; there was no abscess cavity and no marked adhesions. The right kidney space at the upper pole contained similar pus; no stone or pus was found in the kidney; both kidneys were enlarged and bile-stained; the capsule stripped easily. The liver was enlarged, otherwise normal. The stomach was normal except some adhesions in the gastrohepatic area; on its anterior surface was an old scar of a healed ulcer; it had no adhesions about it and did not show on the outside to either inspection or palpation. The duodenum and gall bladder were normal. The pancreas was somewhat sclerotic, there was no hemorrhage or abscess. There was nothing in the lower abdomen but adhesions and seropurulent peritonitis.

From the fact that there had been an old appendicitis and that no other source of pus was found and that pus was in the subphrenic space on both sides and in the right kidney space, we are forced to conclude that there was, first an appendicitis with insignificant symptoms and without suppuration causing a subphrenic abscess, and later a general peritonitis secondary to the abscess with lymphatic infection to the lung. Eisendrath in an article in 1908 speaks of this condition but found but six cases of left subphrenic abscess due to appendicitis.

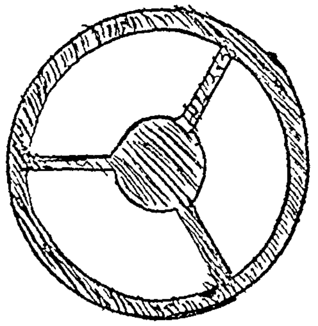
The time consumed in developing such widely disseminated foci and pus of the organized quality must have been considerable. Unfortunately no bacteriologic examination was made of the pus.

DARK-GROUND ILLUMINATION WITH ORDINARY MICROSCOPE EQUIPMENT

CHARLES GOOSMAN, M.D.

CINCINNATI

The interest in the *Spirochæta pallida* has brought the methods of dark-ground illumination into prominent use for practical purposes. The following is a method of securing this form of illumination, without the aid of special apparatus. The only things needed are a microscope-stand fitted with an Abbé condenser of 1.20 N. A. or 1.40 N. A.—focusing screw for the condenser—a swing out ring below the condenser (such as is fitted to most microscopes, for holding a blue glass disc), 16-millimeter and 4-millimeter objectives, the latter preferably of low aperture (0.65 N. A.), although the one with a higher aperture will do. The illuminant may be a simple one-inch flat-wick oil lamp, although a high power single glower nernst lamp is very much better. Dark-ground illumination is easily obtained with low power objectives, therefore it is best to practice with the 16-millimeter lens before using the higher power necessary to distinguish the spirochete, following the directions given below:



Cardboard center-stop for use in dark-ground illumination.

Using the 16-millimeter objective, take a slide of sedimented urine, or scrapings from the mouth, containing epithelial cells. First focus the object, then focus the condenser until the image of the light source (the flat side of the flame from an oil lamp, for instance) is seen in the field with the object. Provide a center-stop cut out of cardboard or heavy dark paper like the diagram—a circular disc, having a portion between the rim and the center cut out, as shown by the unshaded part. This kind of diaphragm comes with most microscopes, but can be readily made. Several such discs should be cut out, leaving central stops of different sizes. The outside diameter of the disc, of course, must fit the turn-out ring that is placed below the condenser. With the object and the light source both in focus, as stated above, put a small disc under the condenser. If that does not completely darken the field, use a larger disc, and finally alter the focus of the condenser a trifle until the field is black, and the objects stand out brilliantly. This method, with the 16-millimeter objective and high ocular facilitates the search for casts. When one is found, merely swinging out the ring carrying the center-stop brings direct illumination into use.

It should be added that when using dark-ground illumination the iris diaphragm below the condenser should be wide open to start, and then it can be partially closed, if necessary, to make the field darker. It is easy to get a dark-ground with the low-power objective, but when using the high power the difficulties increase. The best method is first to put a large drop of cedar-oil on the condenser and put the slide in contact with the oil. This slide may have a drop of syphilitic serum, or, for learning the method of dark-ground illumination, one may take a drop of stale urine or sewage, which is loaded with bacteria. Focus the object with the low power, then focus the condenser so that the image of the light source (say the edge of the flame) is on the same plane as the object, taking care that the cedar-oil maintains the connection between the slide and condenser. If the oil will not fill the gap, use a thicker slide, or use two thin slides, with a drop of oil between them, and another drop between the lower slide and the condenser. Now put the 4-millimeter objective on the microscope, focus the object with a small iris diaphragm, then open the diaphragm and put one of the center-stops under the condenser. Now change the focus of the condenser slightly if necessary, or shift the mirror a little, until the bacteria or other objects are bright on a dark background. Of course, it may be necessary to try several sizes of center-stops below the condenser, but once a certain size is found to work right, that one can be used regularly with that objective. I have used the above described method with a Leitz No. 7 objective, as well as a Spencer 4-millimeter, and while the results are not so good as with a reflecting condenser (on account of chromatic aberration), it has the merit of requiring no extra apparatus. My own preference, in searching for spirochetes, is to use an apochromatic dry objective and an achromatic oil-immersion condenser of English make, but an ordinary outfit will do the work fairly well.

To get the best results from any apparatus, one should know the principles underlying its use, and to get a good exposition of the general principles of dark-ground illumination, the books by Spitta and by Wright on microscopy are very valuable. But it is well to mention here that several amateur microscopists (that is, not medical men) of England, than whom there are no more skilful manipulators, have emphasized the danger of spurious images from dark-ground illumination. This does not apply to the spirochete, so much as to the other objects that may be viewed by this method.

1209 Walnut Street.

ACUTE CHOLECYSTITIS COMPLICATING TYPHOID FEVER

REPORT OF THREE CASES, WITH OPERATIONS

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Gynecologist to St. Vincent's Hospital and Surgeon to Hillman Hospital
BIRMINGHAM, ALA.

The infrequency of reported cases in which cholecystitis has been observed as a complication of typhoid fever would lead one to believe this condition extremely rare, or that it might not have been looked for with the same vigilance as other complications. The post-typhoid cholecystitis, with at times calculus formation, has for some time been recognized as a frequent sequel of typhoid fever. Many of the cases must have been the result of an acute cholecystitis occurring during the attack of typhoid, the acute symptoms subsiding, leaving a chronic cholecystitis present. These patients with chronic cholecystitis are often operated on and the presence of the *Bacillus typhosus* demonstrated months or years after the attack of the fever. Then, if many survive the acute cholecystitis, which very likely resulted from the typhoid attack, it is quite reasonable to think that there are many who die from this cause during the course of the fever.

I believe that acute cholecystitis, of sufficient severity to demand operative procedure, is of far more common occurrence than has heretofore been supposed, and the following cases may, therefore, be found of interest:

Case 1.—*History.*—The patient, Mrs. S. B., aged 38, had had the usual diseases of childhood; otherwise she had always been healthy except for some stomach trouble during the previous six or eight years. She was taken ill on May 31, 1908, with pain in the abdomen, diarrhea and headache. She had complained of headache for the previous ten days, and had had some pain and tenderness in the abdomen, no appetite, and slight diarrhea.

Examination.—The tongue was red; the lungs normal; the abdomen slightly distended and tender. The spleen was enlarged; the temperature 100; the pulse 90. Blood examination: white blood count, 3,800; red blood count, 4,500,000; Widal negative, hemoglobin 95 (Tallquist). The urine was negative. Diagnosis, typhoid fever.

Course of Disease.—June 8: Spleen very much enlarged; white blood count 4,200; Widal positive. Temperature had continued to rise until at this time it was 103 to 104 in afternoon. Rose spots were very abundant. This case ran a course typical of typhoid fever for five weeks. The temperature and pulse became normal, remaining so for several days, when the patient again had a rise for several days. At this time the leucocyte count was 4,000. The relapse lasted for several weeks and had about reached the normal on July 31; then the patient had a severe pain over the region of the gall bladder; the temperature rose to 105, the pulse 170 to 180. There was vomiting; the facial expression became very anxious; there was considerable tenderness over the region of the stomach and gall bladder. The blood showed at this time 11,000 leucocytes. (No differential count was made.) Diagnosis of a cholecystitis with perhaps perforation was made. I called in Dr. Lull, who concurred in this, and while the chances from operation did not look very encouraging we earnestly insisted on this and gained the patient's consent after a few hours' wait. At this time (five hours later) the leucocyte count had risen to 15,000, which was about 11,000 increase from a few days previous.

Operation.—The patient was placed on the operating table about ten hours after the first pain was felt. I made an incision over the gall bladder, and found this organ very much distended. On the fundus was a small necrotic area through which the very thick, dark-looking bile was being discharged. This bile was of the consistency of jelly, which accounts for the gall bladder not entirely emptying itself into the peritoneal cavity. Cholecystotomy was performed, using a rubber tube covered with a cigarette drain. I closed the gall bladder around this with a purse-string suture. The entire operation was completed and abdomen closed in eighteen minutes. The patient's condition seemed no worse than when the operation was commenced (which was bad enough). The patient was given hypodermoclysis on the table, and after the operation saline enemas, strychnin and spartein sulphate were given every three hours. In eighteen hours the temperature was 98.6, pulse 100, and the patient made a rapid and uninterrupted recovery. The gall bladder discharged no bile until after the fourth day, when bile was freely discharged.

Case 2.—*History.*—J. D. Almond, aged 23, was brought into the hospital on Sept. 1, 1908, the sixteenth day of typhoid fever. His previous history was good until the development of the present attack. When admitted to hospital the patient was suffering with severe pain over the gall bladder region, but had not complained of this until put on train to be brought into hospital.

Examination.—The eyes were normal; the tongue red and very dry; the heart and lungs normal; the spleen very much enlarged. There was tenderness over the gall bladder. The temperature was 103; the pulse 128. The abdomen was distended and rigid. The patient was nauseated and had vomited a few times before admission. The Widal test was positive: white blood count 16,000. Diagnosis was made of cholecystitis complicating typhoid fever.

Operation.—The patient was carried to the operating room and an incision made over the gall bladder. This organ was found very much enlarged and distended. I opened the gall bladder, which was found to contain thick, dark bile. No stones were found. A rubber tube wrapped with cigarette drain was inserted, the edges of the gall bladder turned in and the tube retained by a purse-string suture. No bile was discharged for two days: then it began to discharge freely through the draining-tube. In twelve hours the temperature had dropped to 99.4; the pulse was 84. The patient made a nice recovery. Culture from the bile was examined and a motile bacillus found.

Case 3.—*History.*—Mrs. S. D., aged 15, was admitted to the hospital on Sept. 10, 1908, with diagnosis of typhoid fever. Her condition mentally was very bad and the history had to be obtained from her husband and the doctor bringing the case into the hospital. The past history could not be secured beyond the present illness. The patient had been ill one month; had been constantly in bed only for the previous five days, but had been having fever for two weeks past; the physician stated that the temperature ran up to 104 to 105 each afternoon and about 102 in the forenoon (when he had seen her). The patient was four months pregnant. She was vomiting about once or twice each hour.

Examination.—The patient had a very anxious facial expression. The tongue was very red around the edges, with a dark coat, and trembled very markedly when protruded: it was hard to get the patient to protrude the tongue on account of her bad mental condition. The chest seemed normal. The spleen could not be felt on account of the distended abdomen and extreme tenderness. There was much tenderness over the gall bladder and some tenderness over the appendix and uterus. The patient seemed in great pain. The blood examination showed white blood count 4,000, hemoglobin 40 per cent., Widal very positive. The pulse was 140, the temperature 103.4. The urine showed albumin present; there were abundant hyaline and granular casts. The diagnosis was made of typhoid fever complicated by suppurative cholecystitis.

Operation was advised, but the husband was unwilling to have the patient operated on until her mother could be consulted. We offered no encouragement and did not insist on operating. The mother did not arrive until the day following, and gave her consent to operation. At this time the patient's condition did not seem much changed for the worse, as it had been about as bad as possible on the day of admission. According to the nurse's notes, between 7 p. m., September 10 and 7 a. m., September 11, the patient was delirious, suffering great pain in the abdomen. She had five liquid movements during this period. Three-quarters of a grain of morphin sulphate was given by hypodermic injection during the night. It will be seen that we did not have a good subject for a surgical operation. The temperature at this time was 104.6, pulse 132, white blood count 10,000.

Operation.—An incision was made over the gall bladder, exposing the firmly adherent omentum covering the organ. The omentum was dissected away, exposing a very much distended gall bladder. The liver was speckled or nutmeg in appearance. The gall bladder, on being opened, was found to contain a thick, tarry bile mixed with a yellowish discharge, which proved to be pus. The gall bladder was drained after a culture was taken for bacteriologic examination. On account of pain in the lower abdominal region we considered it best to explore this region. An incision was made in median line; the uterus, being brought into view, presented a very unhealthy appearance. The question of a living or dead fetus was undecided, and considering that we had perhaps a toxemia of pregnancy, a dead fetus and a very unhealthy uterus, we decided to remove it. The appendix was normal. The time consumed in removing the uterus, draining the gall bladder and closing both incisions was eighteen minutes. The patient left the table in about as good condition as when she came on.

Postoperative History.—On the third day there was a normal movement from the bowels; the temperature and pulse began to fall until on the eighth day after the operation the pulse had reached 100 and the temperature 100.8 by rectum. The bowels were acting nicely and the prospects for continued improvement seemed bright, when the patient's condition became suddenly worse. The temperature per rectum was 98, the pulse 144, and there was great pain in the right iliac region. Drs. Johnson and Whelan were called in and the diagnosis of perforation was made, but on account of the desperate condition of the patient operation was not advised. The diagnosis was found correct at autopsy, the perforation being about four inches from the ileocecal junction. The report on the gallbladder findings was a mixed infection of a motile bacillus and streptococcus.

109½ North Twentieth Street.

Therapeutics

INFANT FEEDING

In this age of bottle-fed infants, milk foods, substitute foods, pasteurized milk, and modified milk, it may be well to ponder some on the facts presented in a paper by Dr. Joseph E. Winters, of New York, Professor of Diseases of Children at the Cornell University Medical College. It may be well to present his findings in the form of aphorisms.

1. Infant mortality has only lately decreased, while the mortality of older individuals has been continuously decreasing.

2. A breast-fed child in the worst surroundings has an immunity from disease never found under any condition of substitute feeding.

3. The mother's milk is very rich in fat, containing 5 per cent. (together with 7 per cent. of milk sugar, and 1.25 per cent. of proteid) and, other things being equal, the fatter the child, the healthier it is.

4. The extra amount of fat which the child receives from its mother's milk over and above that from artificially prepared foods is absolutely necessary for the maintenance of its requisite heat, and when it is remembered that heat is largely lost by radiation and evaporation from the surface of the body, and the child having relatively three times as much surface for radiation and evaporation as the adult, the importance of maintaining the fat content of its food is at once seen.

5. The extra amount of fat is also needed for the child's nutrition on account of the rapid growth of brain, nerves, and bone marrow, all of which tissues contain large amounts of fat.

6. Separator (or centrifugal) cream is prepared from whole milk by rapid revolutions of the separator, and is consequently lower than gravity cream in all of its constituents except fat, and would be more correctly named if called centrifugal or separator butter fats instead of cream. Also, by the excessive pressure the fat globules are no longer free, but are so crushed together that when added to modified milk they form masses of fat that can not be well digested by the child. Such conglomerate fat which must reach the intestine for digestion, "does not readily pass through the narrow pylorus of the infant. Such fat is, then, as indigestible as cheese."

7. "Centrifugal cream is almost proteid-free and nearly destitute of growth constituents, hence the only food value it can have is as an addition of fat to other milk."

8. The upper half-ounce of *gravity* cream contains 3 per cent. of proteid, and gives fat globules so loosely

coherent as to be readily emulsified, and hence it does not form a tough curd in the child's stomach as does separator cream. Therefore, the upper half ounce of gravity cream from milk of cows "other than Jerseys and Guernseys," whose milk is too rich in fat, makes the best basis for an artificial food for the infant.

9. "There is a definite and unfailing relationship between growth and the percentage of proteid in milk. The calf doubles its weight in forty-seven days with 4 per cent. of proteid in milk: the lamb in ten days with 7 per cent.: the puppy in eight days with 8.25 per cent.; the kitten in five days with 9.33 per cent.; while a child grows most rapidly during its first week of life, at about which period the secretion of the mother's breasts contains 8.5 per cent. of albumin. The high protein, non-coagulable, absorbable without digestive effort of mother's milk is impossible of duplication."

10. "The mortality of infants under one year is so great that an equally high death rate is not again recorded until the age of eighty years, and 75 per cent. of these deaths occur in the first six months. Such a mortality would not occur were all infants breast-fed, and maternal nursing even shows a lower mortality than with wet nursing, showing that the mother's milk is peculiarly adapted to her own infant."

11. "Calcium phosphate, magnesia, sodium and potassium chlorid in greater quantity in colostrum than in milk of later period is peculiarly adapted for cleansing the child's intestines of the perilous meconium."

12. As the child's stomach rapidly enlarges and the pylorus increases in size, after from six weeks to two months, the child can better digest properly modified cows' milk.

13. At the end of this period, six weeks to two months, it is possible to modify cows' milk to simulate mother's milk, but before this six weeks' period it is almost impossible to produce a food that can at all equal, in its gradual modification, Nature's own method of feeding and nourishing the young infant.

14. While it is necessary for the welfare of the infant that it receive its mother's milk, it is also for the best health of the mother that the child should nurse. In about six weeks after delivery the large, heavy uterus should have involuted to the normal size of the non-pregnant uterus. A powerful aid to such proper involution is the reflex contraction which takes place in the uterus when the infant grasps the nipple. If the uterus receives this reflex stimulation to contraction from eight to ten times every twenty-four hours, and such reflex stimulation lasts from fifteen to twenty minutes, and such functions and stimulations are normal, it may be easily seen how one set of generative organs may not return to perfect health if the other set is not properly utilized.

15. If it is thoroughly explained to the mother that during her normal period of rest after confinement, viz., six weeks, that the child *extra utero* is just as much a part of her as the child *intra utero,* and that after these six weeks, if it seems advisable, the child may be weaned and artificial food given, she will certainly coöperate for her own and the child's health, and will nurse her own baby.

16. "The milk of every healthy mother agrees with her child." The child should nurse slowly if it will, and should obtain its food with some effort on its own part, as vigorous nursing stimulates the child's secretions and hence is much better than for the milk to flow readily, as from a bottle.

17. "Never give water from a bottle to a new-born child—refusal to nurse is certain to ensue. Water may be given from a spoon twice the first day. It must not be given the second. Much water, even from a spoon, prevents vigorous nursing."

18. The green stools due to the meconium are often incorrectly believed to be because the milk disagrees, and calomel or castol oil are needlessly given, or the child is needlessly weaned. Also, "officious discussions, before the mother, that her milk probably disagrees with her own child on account of some apparent colic, sleeplessness, or a little vomiting, or a little mucus in the stools, has caused the loss of many lives by making the inexperienced mother needlessly wean her child."

19. After the child has nursed to its fill, it should be placed in a quiet, darkened room, where it may uninterruptedly sleep until it is again ready to nurse. Too much handling of the young infant interferes with its digestion and its nutrition.

20. Winters believes that, as the maximum gain in breast-fed children is during the second month, and, as (he thinks) the proteid and minerals in the mother's milk are inadequate for the proper growth of the child after the second month, that Nature did not intend the prolongation of lactation to eight or ten months.

21. After the first month Winters would give the breast-fed child two bottles of modified cows' milk every twenty-four hours, at such times as to allow the mother uninterrupted rest at night, and an occasional freedom during the day. Such a method makes weaning easy, at any period.

22. "Pasteurization dissolves the organic union of mineral and proteid in milk, and thus fails to present the baby with normally constituted organic food. It is a recourse to palm on a credulous public milk unfit for food."

23. "An infant is not endowed with the ability to digest vegetable foods; hence foods from barley or any other grain are not adapted to the infant's needs. Of 1,000 children fed on various infant foods, 780 more died in the first year than of 1,000 breast-fed children. Infant physiology, physiologic chemistry, and experimentation demonstrate that the giving of any food other than modified raw milk to an infant under six months is perfidious. In Germany, when an infant under one year dies the law requires the mode of feeding to be stated on the certificate of death. Barley, dextrinized cereal, malt soup, all adventitious and foreign accessions to modified milk, enchance mortality."

"When the order of nature changes; when the functions of heat, respiration and nervous energy in the new-born can be accomplished without fat as a source of heat; when the blood-forming, heat-producing and force-producing structures contain no fat; when women's breasts secrete barley gruel, dextrinized cereal, malt soup, wheat flour, sour milk, and fat-free milk, these anomalous and strange feeding whims will be founded on some bottom of reason."

ASTRINGENT MOUTH WASH

The following is a suggestion in the *Druggists Circular*, January, 1909:

℞.	gm. or c.c.		
Tincturæ myrrhæ	75		fl.℥iiss
Tincturæ cardamomi compositæ	20		fl.℥i
Tincturæ cinchonæ compositæ	75	or	fl.℥iiss
Spiritus caryophylli	15		fl.℥ss
Eau de Cologne, ad	200		ad. fl.℥vii

M. et Sig.: Add a teaspoonful to a glass of warm water, and use as a mouth wash.

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[*For other information see second page following reading matter*]

SATURDAY, MAY 15, 1909

THE PANCREAS AND THE LIVER IN DIABETES

Although it is now nine years since Opie first described the occurrence of definite lesions in the islands of Langerhans in diabetes, we are still uncertain as to just what relation these structures and their pathologic alterations may have to diabetes. While there are those who have gone as far as Dale and denied the very existence of the Langerhans islands as independent structures, and others have disputed their relation to carbohydrate metabolism, the balance of evidence and the weight of opinion are now altogether in favor of considering them as specific organs of internal secretion which are concerned in carbohydrate metabolism. Just what part they play in this process, or how they do it, are admitted to be unsettled problems. Granting the fundamental importance of these structures in the utilization of sugar by the body, their connection with diabetes is to be assumed, and the finding of lesions in them in diabetes would settle the matter were these lesions more constant. However, the results obtained by different observers have been so much at variance that it has been extremely difficult to draw satisfactory conclusions, and therefore some pathologists are more than a little skeptical as to the importance of the lesions that have been described.

When we find that in the pancreas of a person dead of diabetes practically all the islands of Langerhans have been replaced by a hyaline substance or by scar tissue, without other lesions of the pancreas being present, we have every reason to suspect these lesions of responsibility for the defective carbohydrate metabolism. But when we find such distinct changes present in but a small proportion of all cases of fatal diabetes, and find in a very considerable proportion only slight or no distinct pathologic alterations whatever in the pancreas, the question of the exact significance of the observed lesions becomes a matter of doubt. And when we observe that in still other cases the islands of Langerhans, instead of evidencing impairment of function are distinctly hypertrophied and apparently over-functioning, the situation becomes almost hopelessly confused.

These being the facts at present, it is evident that we need to have a careful correlation by unprejudiced observers, of the conditions present in the patient during life and the changes present, not only in the pancreas, but in the other tissues after death.

Statistical studies are here of importance, and one of the most extensive collections of cases yet made has been recently published by Dr. R. L. Cecil.[1] In 1902 Sauerbeck collected from various sources reports of 176 cases of diabetes in which the condition of the islands had been noted, in 62 per cent. of which lesions of one kind or another were observed. Cecil's report on 90 cases has much more value, however, for these cases have all been studied by one observer and are therefore better correlated and more uniformly analyzed. Of the 90 cases the pancreas was found normal in but 11, although it must be admitted that in many of the 88 per cent. of abnormal pancreases the lesions were not very extensive; and the evidence in favor of the causal relationship of the islands of Langerhans seems to be made stronger by this paper. Nevertheless the occurrence of so many cases in which the changes in the pancreas are but slight or entirely absent leaves open the question as to whether the pancreatic lesions may not be the result rather than the cause of the diabetes. Cecil believes that the variety of lesions found in the pancreas is against the view that they are all the results of a common cause, diabetes. But in the cases in which no pancreatic lesions are present, it must be admitted that here, at least, the diabetes is not of pancreatic origin, and presumably the same is true in many of the cases in which pancreatic lesions are present but of slight degree. Indeed it seems probable that the discrepancies in the findings in the pancreas in diabetes will serve to bring out the fact that diabetes may often have other than a pancreatic origin, and should stimulate the search for pathological conditions elsewhere in the body.

So strongly has our attention been focused on the pancreas lesions that it is possible that we have overlooked other equally important changes. Indeed, Rössle[2] believes that a diagnosis of diabetes can be made with more certainty in the autopsy room on the basis of the hepatic than on the pancreatic changes. The liver of diabetes is enlarged, of a rosy color, and with a transparent or homogeneous appearing parenchyma. While the liver normally represents from 2.3 to 2.75 per cent. of the body weight, in diabetes it is from 2.9 to 4.1 per cent., averaging 3.54 per cent. Pfluger has also observed that in dogs with experimental pancreatic diabetes the liver is enlarged, although with a corresponding degree of emaciation from other causes the liver is much atrophied. Microscopically, the diabetic liver shows interesting changes, including constant fatty changes in the stellate cells of Kupffer, and the nearly constant presence of peculiar, homogeneous refractile bands along the capillaries. The latter appearance seems to be specific for and characteristic of diabetes.

In view of the essential importance of the liver in sugar metabolism the hepatic changes of diabetes would seem to be fully as significant as the pancreatic lesions, and worthy of the same careful study. It may be that a comparative study of the changes in these two organs, correlated with the clinical and chemical manifestations of selected cases, will be able to throw new light in some of the obscure places.

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[1] Jour. Exper. Med., March, 1909, 266.
[2] Verh. deut. pathol. Gesellsch., 1907, xi, 334.

SCHOOL HYGIENE

The remarkable wave of interest in preventive medicine and sanitation which is making itself felt in many ways among the laity can assuredly find no better outlet than when directed into the channels of school hygiene. Such questionings of heart and rattling of dry bones as are now taking place in the whole field of education from the college to the kindergarten has not been witnessed for at least a generation. It is well that it is so. To take children from their homes and set them tasks which may injure irreparably their eyesight or their capacity of spontaneous interest, while placing them under conditions in which various infectious diseases may be more readily contracted at the same time that general bodily resistance is decreased by overheated rooms, rebreathed air, mental fatigue and cramped attitudes does not seem to constitute the last word of civilized man on the proper rearing of his offspring. The hygienic dangers involved in bringing up children *en masse* need to be all the more carefully scrutinized when we find that not a few modern writers are expressing grave doubts about the real value of much of our present educational "system" and are boldly suggesting that the whole outfit might be demolished with advantage.

In any case every sane parent will welcome the assistance and counsel of the numerous agencies now at work to improve the physical condition of American school children. The work of the strong and enthusiastic American School Hygiene Association now in its third year, the newly organized special society for the study of the long unguided — some would say misguided — development of athletics, the astonishingly effective and popular work represented by the Playground Association of America are some of the overt manifestations of this deepened interest. New journals are being started, medical school inspection is being greatly extended and elaborated, and conferences, such as the recent Massachusetts Dental Hygiene Conference, are being held on special topics. Is it too much to hope that out of all this whirr of committee meetings, sound of many voices and tons of printed paper some good will come? We are at all events gradually acquiring that precise definite information about the mental and physical qualities of school children and the necessities of the common school life without which all agitation for social betterment is mere beating of the air.

To illustrate with a concrete example the sort of inquiry now being undertaken by competent hands: A thorough judicial survey has recently been made by Professor Burnham[1] of the scanty evidence concerning the best division of the working day for school children. He points out that just as we do not know whether our usual custom of taking our sleep in one dose and our food in three doses is hygienically the best, so we do not know whether the most effective daily work can be done by confining it all to one period or dividing it into several.

Individual habits and social customs usually settle these matters for the adult, but what habit is it best to develop in the child? The general results obtained in Professor Burnham's study of the question, although admittedly based on very insufficient data, point to the conclusion that in spite of the fact that in the afternoon there is usually decreased ability to work and a general confusion and dulling of the powers, a single long session, at least for children in the grammar grades, is but driving out the devil by Beelzebub. There will, we think, be general agreement among physicians that the one session plan is almost sure to be detrimental to the health of a large number of children. The whole question illustrates the complexity of the school problem on its hygienic as well as on its pedagogic side, and emphasizes the importance of genuine investigation in this field.

THE PROBLEM OF THE HABITUAL DRUNKARD

To the courts and the public, the drunkard is not so much a problem as a wearisome and never-ending nuisance, forever being shuffled hastily out of the way, and perennially cropping up anew. Thus, in our large cities, thousands are arrested, only to be immediately discharged; and neither the mechanical process of arrest and discharge, nor the equally mechanical infliction of a fine or a workhouse sentence, has any result other than to prepare the "rounder" to go through the mill once more. This view is well brought out in a recent number of the *Survey*.[2]

"It has been demonstrated after years of experience in this country and abroad," says the *Survey*, "that petty fines and short sentences do not reform the drunkard or protect society." Inebriety, like insanity, can not be perfunctorily suppressed; but systematic treatment has been even more tardily provided for the drunkard than for the lunatic.

Great Britain has tried thoroughly the policy of segregation of inebriates in separate institutions. The Habitual Drunkards Act of 1879 permitted the commitment of inebriates to private institutions on their own application; the Inebriates Act of 1898 provided for the commitment to private or public institutions of persons who repeatedly appear before the courts for drunkenness or for crimes in which drunkenness is a contributing cause. In Massachusetts, Minnesota, Iowa, Connecticut, Nebraska and Pennsylvania, the habitual drunkard may be committed to an institution for care and treatment on his own application or on that of friends or relatives, much as an insane person may be committed to a hospital; but the three states first named are the only ones which have separate public institutions for the treatment of inebriety.

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[1] Hygiene and Physical Education, March, 1909, p. 1.

[2] April 10, 1909, xxii, 84.

A bill recently introduced in the New York legislature contains the most comprehensive scheme of treatment for inebriety yet devised—one based on studies of methods in use elsewhere and of conditions existing in New York City, to which the bill applies. A city board of inebriety, complete records, making possible accurate discrimination between different classes of drunkards, and a hospital and medical colony under medical direction, are important features of the plan. First offenders are to be released on probation. Commitment of an inebriate requiring systematic treatment may be made on request of the patient himself or on that of relatives or friends, without appearance in court.

If the New York bill becomes a law, its operation will doubtless furnish much instruction and its success great encouragement to those in other states who may desire to deal more thoroughly with the problem of inebriety.

THE MICRO-ORGANISM OF WHOOPING COUGH

The etiology of whooping cough has long been an unsolved problem. Many attempts have been made to discover some micro-organism in association with it, but hitherto the results have been very contradictory. In 1906, however, Bordet and Gengou[1] described an organism which they obtained in pure culture and offered considerable evidence to show that it was the organism causing the disease. Their results have recently been confirmed by Klimenko.[2]

The organism they describe is a small, short bacillus, with rounded ends. It stains feebly and shows polar granules with carbol methylene blue. It decolorizes by Gram's method. It is non-motile, aërobic, and grows very slowly and feebly when first isolated, and only on a special medium they devised, composed of glycerin, potato, gelatin and blood. But after several generations it will grow fairly well on other media, and does not require hemoglobin, unlike the influenza bacillus, which it somewhat resembles.

It occurs in the sputum in large numbers, and almost unmixed with other organisms at the onset of the disease, during the catarrhal stage and for a few days after the whoop appears. It is only at this stage that it can be obtained in pure culture. As the disease progresses, other organisms appear, especially the influenza bacillus, which outgrow it, and eventually it becomes difficult to find it, even in stained preparations. It has been cultivated from the blood and lungs of fatal cases in man. The blood in convalescent cases agglutinates the organism, but rather feebly. Using a culture of the organism as an antigen, specific antibodies have been demonstrated in the blood serum of patients by the complement-fixation test.

In monkeys and young dogs by intratracheal injection a disease has been produced similar to the human type, except in the absence of the whoop; normal animals, by simple exposure in a cage to an infected animal would readily contract the disease. The organism was always recovered from the nasal discharge of these animals, and in some cases from the lungs or blood at autopsy.

Out of 76 human cases the organism was cultivated only in the 5 early cases. But it was demonstrated by stained preparations in 64, or 80 per cent. of all the cases. It was never found in 50 normal children, nor in 31 cases of other acute respiratory infections.

On the whole, the evidence in favor of this organism as the etiologic factor in whooping cough seems rather convincing. It would seem to be of considerable practical importance as well in the early diagnosis and prophylaxis of the disease, for, although it is only at the onset of the disease that the organism can be readily demonstrated, it is just at this time that the diagnosis is most important and most often in doubt.

THE NEW MARYLAND LIBRARY BUILDING

At the annual meeting of the Medical and Chirurgical Faculty of Maryland, held in Baltimore this week, occurred the formal dedication of the new library building which is to form its permanent home. The *Maryland Medical Journal* for May contains an historical article of interest by Dr. A. K. Bond of Baltimore, in which the origin and growth of the society is outlined. Chartered in 1799 for the purpose of protecting the public from quackery and incompetence and of promoting medical culture among regular physicians, the society within thirty years after its organization, in 1830, comprised in its membership every one of the 600 physicians of the state. At this time a library committee was appointed and the beginning of the present collection was made. For a time the library was housed in the office of the member who was appointed librarian. For a number of years the surplus from fees for examinations for licenses afforded the means for increasing the library. Financial difficulties arose, however, and in 1838 the state legislature, at the urgent petition of the "Thompsonians," a medical sect of great activity at that time, passed a law permitting any one who so desired to practice medicine. License fees at once fell off and the library declined with lack of financial support. With the organization of the American Medical Association, however, medical organization in Maryland was

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1. Ann. de l'Inst. Pasteur, xx and xxv.
2. Centralbl. f. Bakt., etc., I Abt. Orig., xlviii.

stimulated, and in 1848 a catalogue of the medical library, which was then lodged with the Mercantile Library, was printed and life memberships were established. In 1857 a building was purchased and the library installed therein. The Civil War, however, put a stop to further growth, and until 1870 but little progress was made, although the library continued to exist. In 1870 it was reorganized and has since occupied successively four different locations, each being larger and better than the former one. In 1900 the society considered itself strong enough to undertake the erection of a new fireproof building with accommodations for the library and with a large hall for assembly purposes. After careful consideration, a committee was appointed in 1905. In 1907 a lot was purchased. Ground was broken for the building in August, 1908. The new structure is fireproof, the library containing stacks for 60,000 volumes. There are also three communicating halls for meetings, the largest seating five hundred. The erection and dedication of this splendid new building, which will form a permanent home for the state society, will be a source of great and deserved satisfaction to all its members and can well serve as an object-lesson to other state associations.

THE TRANSMISSION OF GERMS IN MAILS

The postal authorities have sent out a warning to local postmasters in regard to the reception of improperly packed parcels containing dangerous substances, such as disease germs. It is worth while for all who may have occasion to submit diseased tissues or culture specimens for laboratory examination to note that liquid cultures, or cultures of micro-organisms in media that are fluid at the ordinary temperature, may not be sent through the United States mails at all; that solid specimens of diseased tissues, whether moist or dry, may be mailed only to United States, state or municipal laboratories; and that such specimens are admitted to the mails only when packed and indorsed as provided in the regulations of the Postoffice Department.[1] If the postoffice instructions are carefully observed there can be little danger of infection of postoffice employés from this source. It might be desirable to exclude the germs of some diseases from the mails entirely—for example, glanders and anthrax—although it is probably most rare for the mails to be used for the transmission of these organisms. In case of breakage it would be impossible, in a postoffice or mail car, to insure the complete and immediate sterilization advisable. If the prescribed precautions are followed, however, breakage and infection need not be feared. The action of the Postoffice Department is commendable; it is the ounce of prevention against a possible, though not probable, danger.

Medical News

CALIFORNIA

Personal.—Dr. Warren N. Horton has resigned as city bacteriologist of Los Angeles.——J. C. Thomas has been reelected president, and Dr. George B. Worthington, secretary, of the Marysville Board of Health.

License Revoked.—At a recent meeting of the State Board of Medical Examiners, the license of Dr. F. Grosshauser, formerly of Lodi, but now a resident of Texas, is said to have been revoked on the ground that his license had been obtained by fraud. The authorities of Texas were notified of the findings.

Antituberculosis Work.—A meeting was held April 27, in the Agnew Sanatorium, for the reorganization of the San Diego Society for the Study and Prevention of Tuberculosis. After the adoption of a new constitution and by-laws, officers were elected. The medical representatives are as follows: President, Dr. Joseph A. Parks; first vice-president, Dr. Fred R. Burnham; treasurer, Dr. Thomas S. Whitelock; directors, Drs. Henry P. Newman, Francis H. Mead and I. Daniel Webster, and advisory board, Drs. Homer C. Oatman, Harry N. Goff, Fred Baker, Harold A. Thompson, D. P. Northrup, R. S. Cummings, Berte V. Franklin, Joseph C. Hearne, Edward Grove, Charles C. Valle and Edward M. Fly.——The California Association for the Study and Prevention of Tuberculosis, at its annual meeting, held in San Jose, elected the following officers: Dr. George H. Evans, San Francisco; vice-presidents, Drs. Edward von Adelung, Oakland, and Fitch C. E. Mattison, Pasadena; secretary, Dr. George H. Kress, Los Angeles, and treasurer, Dr. C. H. Toll, Los Angeles.

State Society Meeting.—The thirty-ninth annual meeting of the Medical Society of the State of California was held in San Jose April 20-22. The attendance was excellent, and general interest was shown in the report to the society of the various matters presented to the last legislature, and the outcome of the much-proposed legislation. A considerable number of bills radically changing the medical laws were introduced in the legislature, but all were defeated. An amendment licensing a limited number of persons to practice "naturopathy" was passed as a compromise measure, and in the future all followers of that cult will be obliged to pass an examination before the board of medical examiners. The eye, ear, nose and throat section of the society devoted almost its entire program to the consideration of otitis media in all its aspects, complications and the means for its relief and cure. A special feature of the meeting was a large pathologic exhibit and the many demonstrations, including rat plague with specimens, and tubercular infection of guinea pigs after injection with milk taken from a milk wagon of the streets of Berkeley. The afternoon of the second and morning of the third day were devoted entirely to lectures on the specimens and demonstrations of "Filaria" by Dr. Herbert Gunn, San Francisco; "Arterial Suturing," by Dr. Henry A. L. Ryfkogel, San Francisco; "Spirochete and the Wassermann Reaction," by Dr. Harry R. Oliver, San Francisco, and "Sporothrix Schenckii," by Dr. Jesse M. Burlew, Santa Ana. In addition to the list of officers which appeared in The Journal of May 8, page 1503, Drs. H. Bert Ellis and Granville McGowan, Los Angeles, were elected delegates to the American Medical Association.

CONNECTICUT

Good Work Appreciated.—At the annual banquet of the American Therapeutic Society, held in New Haven, May 9, a silver loving-cup was presented to Dr. Oliver T. Osborne, New Haven, by the non-resident members of the society, in appreciation of the faithful work done by Dr. Osborne, and the excellent arrangements made by him, for the meeting of the society.

DISTRICT OF COLUMBIA

Personal.—Dr. Milton J. Rosenau, P. H. and M.-H. Service, was recently operated on for appendicitis.

Election of Officers.—At the annual meeting of the Medical Society of the District of Columbia, April 27, Dr. Thomas N.

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[1] The rules were printed in full in The Journal, March 6, 1909, p. 791.

McLaughlin was elected *president*: Dr. James A. Watson, vice-president; Dr. Luther H. Reichelderfer, secretary; and Dr. Frank Leech, treasurer.

Health Office Promotions.—Under the district appropriation bill, passed by congress, several higher salaries were granted to officials of the health department, and a number of promotions recommended. The salary of Dr. William C. Woodward, health officer, has been increased from $3,500 to $4,000 per annum; Dr. Henry F. Sawtelle has been promoted from chief inspector and deputy health officer with a salary of $1,800 to assistant health officer with a salary of $2,000 per annum, and the salaries of the chief clerk and several other employés have also been increased.

ILLINOIS

Personal.—Dr. George M. Peairs, Joliet, sailed for Europe May 4.——Dr. Vernon Holbrook, Peoria, while running to catch a car, April 28, fell and fractured his leg at the ankle.——Dr. James F. Harris, Ogden, was fired on by an unknown assailant May 31, and wounded in the leg.

Smallpox in Northern Illinois.—An epidemic of smallpox of mild type is reported in Marengo, where 14 cases have been found, necessitating a strict quarantine, closing of the public schools, and prohibition of church services and other public gatherings.

Dinner for Women Physicians at Quincy.—The members of the Women's Medical Society of the State of Illinois will hold their annual dinner at the Newcomb Hotel, Quincy, May 19, at 5 p. m. All women physicians in attendance at the meeting of the Illinois State Medical Society are requested to be present.

Tuberculosis Bill Signed.—The governor has signed the Wright bill which allows counties to purchase and hold real estate to be used as sites for public tuberculosis sanatoria, and gives county boards power to erect and maintain such institutions at the expense of the county. The measure goes into effect July 1.

Chicago

Personal.—Dr. Arnold C. Klebs left May 11, for Geneva, Switzerland, where he expects to spend two years in study and research work—Dr. Ulysses S. Grim sailed for Europe May 4.

Abuse of Medical Charities.—The Chicago Medical Society, in cooperation with the Chicago homeopathic, eclectic and physio-medical societies, the Chicago Bureau of Charities, and the Chicago Relief and Aid Society, are contemplating a dispensary reform movement whereby the various organizations of the city will establish a central investigating bureau cooperating with the charitable organizati [illegible] applicants for aid who abuse medical charities. Under the contemplated plan, there will be no delay in furnishing emergency medical service to deserving or undeserving patients, and worthy individuals will be aided as freely and as promptly as before.

INDIANA

Change in Date of Meeting.—Dr. John N. Hurty, state health commissioner, announces that the date of the meeting of the State Health Officer's School has been changed from May 14-15 to May 20-21.

Tuberculosis Notes.—Mayor Bookwalter has notified the Indianapolis Board of Health of his intention to erect a cottage at the new tuberculosis sanatorium now being constructed on the city hospital grounds in memory of his brother, Morton Bookwalter. Four cottages have been provided by the Indiana Branch of the National Red Cross, which were opened to receive patients May 3, and other cottages will be built by the Second Presbyterian Church, All Soul's Unitarian Church, St. Bridget's Church, and Mrs. M. L. Rowe.——An association has been formed in Frankfort to build a hospital for the treatment of tuberculosis. The officers of the association are Dr. Oscar W. Edmonds, president; Dr. Albert H. Coble, vice-president; W. R. Hines, secretary, and Dr. Charles Chittick, treasurer.

KANSAS

State Board Election.—At the quarterly meeting of the State Board of Health, held in Topeka March 30, the following officers were elected: President, Dr. Charles H. Lerrigo, Topeka; vice-president, Dr. Clay E. Coburn, Kansas City, and pathologist, Dr. Robert S. Magee, Topeka, Dr. Samuel J. Crumbine, Topeka, the secretary holding over for another year.

Personal.—Dr. William E. McVey has been elected dean of Kansas Medical College, Topeka, and Dr. John B. Tower has succeeded Dr. McVey as secretary of the institution.——Dr. Henry A. Dykes, Lebanon, has been appointed a member of the State Board of Medical Examiners.——Dr. William A. Miller, New Cambria, who was stricken with apoplexy early in April, has recovered sufficiently to resume practice.

State Society Election.—The forty-third annual meeting of the Kansas Medical Society was held in Emporia, May 6-8, and the following officers were elected: President, Dr. Oliver J. Furst, Peabody; vice-presidents, Drs. Thomas F. Foncannon, Emporia; John D. Walthall, Paola, and John P. Kaster, Topeka; secretary, Dr. Charles S. Huffman, Columbus; treasurer, Dr. Lewis H. Munn, Topeka, and delegates to the American Medical Association, Drs. Clarence C. Goddard, Leavenworth; Lyman L. Uhls, Osawatomie, and Joseph E. Sawtell, Kansas City. Topeka was selected as the meeting place for 1910.

LOUISIANA

State Society Election.—At the thirtieth annual meeting of the Louisiana State Medical Society, held in New Orleans, May 4-6, the following officers were elected: President, Dr. Charles McVea, Baton Rouge; vice-presidents, Drs. John J. Archinard, New Orleans; Robert M. Littell, Opelousas, and Samuel M. D. Clark, New Orleans; secretary, Dr. Edward M. Hummel, New Orleans (re-elected); treasurer, Dr. Charles C. Bass, New Orleans (re-elected); delegates to the American Medical Association, Drs. Frederick R. Tolson, Lafayette, and E. Denegre Martin, New Orleans, and alternates, Drs. Espy M. Williams, Patterson, and G. Farrar Patton, New Orleans. The next meeting will be held in New Orleans May 3-5, 1910.

MARYLAND

Violation of Vaccination Law.—The cases against two public school teachers of Breathedsville, instituted at the instance of the State Board of Health, in which the defendants were charged with violating the act prohibiting teachers from admitting to school unvaccinated pupils, came up for trial May 1. Both teachers pleaded guilty, and sentence was suspended.

State Sanatorium Dedicated.—The State Sanatorium for Consumptives, Sabillasville, in the Blue Ridge Mountains, was formally transferred to the state May 15. United States Senator John Walter Smith, formally transferred the sanatorium to the state in the presence of the members of the Medical and Chirurgical Faculty of Maryland, who devoted the last day of their meeting to attending the exercises.

Baltimore

Hospital to Be Improved.—The Hospital for the Women of Maryland has been closed preparatory to extensive improvements, including two new operating rooms in memory of Drs. William T. Howard and H. P. C. Wilson, founders of the institution.

Tuberculosis Dispensary Opened.—The new building of the Phipps Dispensary for Tubercular Patients, Johns Hopkins Hospital, was opened May 3. The building is of brick, three stories in height; the first floor will be used as a dispensary, and the second and third floors for research work. By this addition, the capacity of the dispensary is doubled.

New Building in Use.—A purely formal meeting of the Medical and Chirurgical Faculty of Maryland was held in the new building April 27, the time appointed in the by-laws. The meeting was then adjourned until May 13, for the dedication. The library was opened April 27, but will not be completely available for members until after May 17, when the new rules go into effect. The history of the library is discussed editorially in this issue.

Personal.—Dr. Hugh A. Stewart, assistant resident physician at Johns Hopkins Hospital, has been appointed adjunct professor of pathology in the College of Physicians and Surgeons, New York City.——Dr. Eugene F. Cordell delivered addresses before the District of Columbia branch of the Alumni Association of the University of Maryland at Washington, April 29, and before the Pennsylvania branch at York, May 1.——Dr. Frank G. Moyer suffered a dislocation of his right shoulder in an automobile collision, May 4.——Dr. William Osler arrived from England May 5, and is the guest of Dr. Thomas McCrae.

MISSOURI

McCormack in Missouri.—Dr. J. N. McCormack started on a tour through the state at Maryville, May 3. He expects to visit about twenty-five cities, and will stay for three days in Jefferson City, at the time of the annual meeting of the state medical association.

Personal.—Dr. Charles E. Powell, Elsberry, has been appointed local surgeon for the Burlington System.——Dr. Charles Adkins has been appointed city physician of Kansas City.——Dr. Dennis E. Singleton, Shelbina, has been appointed assistant physician of the staff of State Hospital No. 4, Fulton.

St. Louis

McCormack in St. Louis.—Dr. J. N. McCormack will address the medical profession of St. Louis at the hall of the St. Louis Medical Society, 3524 Pine street, May 29, at 8:30 p. m.

Graduation.—The graduation exercises of the St. Louis College of Physicians and Surgeons were held May 7, when a class of 67 was graduated. The charge to the graduating class was given by C. Porter Johnson, and the diplomas were presented by Dr. Waldo Briggs.

Special Clinics.—The Medical Department of Washington University announces that for two weeks beginning May 24, special clinics and other exercises will be furnished free of charge to alumni and all other physicians who may desire to attend. Those who wish to attend clinics are requested to register at the Dean's office, 1806 Locust street. The announcement also contains a directory showing how to reach the various hospitals in the city, a time table and list of clinics and other exercises.

Unlicensed Practitioner Convicted.—James Austin Larson, who advertised in the daily papers that he was able to cure many diseases by what he called the "teleconi system," is said to have been convicted in the Court of Criminal Correction for practicing medicine without a license. The judge's instruction was "That holding one's self out and representing and professing to be able to heal diseases, no matter by what process, is practicing medicine within the meaning of the law." The defendant was fined $500, but as a compromise, was permitted to pay a fine of $150 on his promise to leave the state.

NEBRASKA

Society Election.—At the forty-first annual meeting of the Nebraska State Medical Association, held in Omaha, May 4-6, the following officers were appointed: President, Dr. P. Harold Salter, Norfolk; vice-presidents, Drs. William J. Birkofer, Gothenburg, and William H. Wilson, Lincoln; secretary, Dr. Alonzo D. Wilkinson, Lincoln; treasurer, Dr. Alexander S. Von Mansfelde, Ashland; delegates to the American Medical Association, Dr. L. Matt Shaw, Osceola, and alternate, Dr. Theodore P. Livingston, Plattsmouth; chairman of section on surgery, Dr. Arthur C. Stokes, Omaha; chairman of section on medicine, Dr. H. Winnett Orr, Lincoln; chairman of section on gynecology and obstetrics, Dr. Edwin C. Henry, Omaha; chairman of committee on public policy and legislation, Dr. Charles W. M. Poynter, Lincoln, and chairman of committee on medical defense, Dr. Alexander S. Von Mansfelde, Ashland. Drs. Ernest J. C. Sward, Lincoln, and Clifford P. Fall, Beatrice, were recommended for members of the State Board of Health.

NEW JERSEY

Personal.—Dr. R. O. Clock, Burlington, was seriously cut and bruised by being thrown from his carriage May 3.——Dr. Harry F. Bushey, Camden, is said to be critically ill with cellulitis, said to be due to an abrasion of the chin.

April Deaths.—There were 3333 deaths reported to the bureau of vital statistics during the month ended April 15, an increase of 341 over the preceding month. Of the deaths 548 were individuals under 1 year of age, 324 of children between 1 and 5, and 1,052 of individuals 60 years old and over. Among the principal death causes were pneumonia, 427; tuberculosis, 415; nervous diseases, 395; circulatory diseases, 365; nephritis, 252; cancer, 145; diphtheria, 59; scarlet fever, 45; measles, 32; whooping cough, 30, and typhoid fever, 27.

Society Meetings.—At the annual meeting of the Hudson County Medical Society, held April 6, the following officers were elected: President, Dr. August A. Strasser, Arlington; vice-president, Dr. Henry J. Bogardus, Jersey City; secretary, Dr. Arthur P. Hasking; treasurer, Dr. Henry H. Brinkerhoff; reporter, Dr. Joseph Koppel; censor, Dr. John C. Parsons; permanent delegates to the state medical society, Drs. John J. Bowman, John J. Mooney, John J. Broderick, Henry H. Brinkerhoff, Jersey City, August A. Strasser, Arlington, and Henry Spence, Jersey City; annual delegates, Drs. T. Richard Paganelli, Hoboken, Henry H. Burnette, Hoboken, William W. Brooke, Bayonne, Berthold S. Pollack, William L. Pyle, S. Herbert Culver and William J. Arlitz, Jersey City, and alternates, Drs. Frederick A. Finn, Jersey City, Merrill A. Swiney, Bayonne, and George D. Fyfe, Jersey City.——Hunterdon County Medical Society, at its annual meeting, held in Flemington, April 27, elected the following officers: President and delegate to the state medical society, Dr. Enoch Blackwell, Clinton; vice-presidents, Drs. George Henry, Flemington, and Isidor Topkins, Califon; secretary, Dr. Obadiah H. Sproul, Flemington; treasurer, Dr. Isaac S. Cramer, Flemington, and censors, Drs. George L. Romine, Lambertville; George N. Best, Rosemont, and Willard E. Berkaw, Annandale, whose death is announced in this issue of The Journal.——Camden County Medical Society, at its annual meeting, held April 27, elected the following officers: President, Dr. William B. Jennings, Haddonfield; vice-president, Dr. Joseph S. Baer; secretary, Dr. Daniel Strock; assistant secretary, Dr. Alexander Ross; treasurer, Dr. A. Haines Lippincott; reporter, Dr. Henry H. Sherk; historian, Dr. Alfred Cramer, Jr.; censors, Drs. William A. Davis and William H. Pratt; permanent delegates to the state society, Drs. Henry H. Davis and Howard F. Palm, and annual delegates to the state society, Dr. Marcus K. Mines, all of Camden, and Drs. William A. Westcott, Berlin, and Charles H. Jennings, Merchantsville.——At the annual meeting of Middlesex County Medical Society, held in New Brunswick, April 21, the following officers were elected: President, Dr. John C. Albright, South Amboy; vice-president, Dr. Benjamin Gutmann, New Brunswick; secretary, Dr. Howard C Voorhees, New Brunswick; treasurer, Dr. David C. English, New Brunswick; reporter, Dr. Arthur L. Smith, New Brunswick, and delegates to the state society, Dr. William E. Ramsey, John L. MacDowall, *Perth Amboy, and* Dr. A. Clark Hunt, Metuchen.

NEW YORK

Build City Hospital.—More than thirty physicians of Poughkeepsie have banded together and have agreed to raise the $30,000 necessary for the endowment of St. Barnabas Hospital in that city.

Personal.—Dr Robert B. Lamb, superintendent of the Matteawan Hospital for the Criminal Insane, was attacked by a patient April 16, and rendered unconscious by a blow with a steel shovel. The patient afterward attempted suicide.——Dr. Louis A. Gould has been added to the medical staff of the Schenectady Day and Night Camp which was opened May 10. Drs. Charles C. Duryee, Louis P. Faust and William L. Pearson have been named as consulting staff to the camp.

State Has High Death Rate.—During the past year the death rate for the state of New York has been higher than the average for other states of the Union. Only California and Rhode Island had higher mortality. The average rate for the entire country was 16.1, while that for New York has been 17.1. The lowest rate in New York state was reported from the Adirondack regions and the highest from the manufacturing centers. The Hudson Valley has been slightly above the general average.

Tuberculosis Increasing in Rural Districts.—The bulletin of the State Department of Health shows that twenty-six cities in the state had a smaller death rate from tuberculosis in 1908 than in the previous year. Troy, Albany, Greater New York, and Cohoes showed the largest death rates from tuberculosis, and Johnstown, Hornell and Tonawanda, the smallest. Consumption is decreasing in the cities and increasing in the country districts. On the basis of the average for the five year period from 1901 to 1905, the death rate in the former dropped from 203.5 to 185 per 100,000 population, while in the latter there was an increase from 112.7 to 123 per 100,000. This is believed to be attributable to the fact that instruction and preventative measures now in force in cities as the result of the campaign the State Department of Health is carrying on in cooperation with the State Charities Aid Association, are lacking in the rural districts.

New York City

Alumni Meet.—The sixth annual meeting of the Alumni Society of St. John's Hospital, Brooklyn, was held May 2, when the following officers were elected: President, Dr. Alfred W. White; vice-presidents, Drs Charles B. Cortright and Edward W. Hodges; recording secretary, Dr. Warren S. Simmons, and corresponding secretary, Dr. Henry T. Hotchkiss.

New York Babies Healthy.—During the past two weeks the 141 nurses attached to the Bureau of Child Hygiene visited 3,000 babies and found only 19 ill. Not a case of ophthalmia was reported. Of this number 1,800 babies were nursed by their mothers. A committee has been appointed to ask the

Board of Education for the use of a public school building in each district during the summer for the purpose of holding public classes for the instruction of mothers.

Amendments to the Sanitary Code.—The Board of Health has added two amendments to the sanitary code: One demands that all cream sold in this city, sweet or sour, must contain not less than 15 per cent. butter fat. This amendment was made necessary because of the methods of adulteration used by some dealers in the poorer neighborhoods where foreigners use sour cream both as butter and as cheese. The second amendment insists that covers be kept on garbage pails.

NORTH DAKOTA

Personal.—Fire, which started in the office of Dr. Rolf H. Meidell, Aneta, entirely destroyed the building, with a total loss of $5,000, partially covered by insurance.——Dr. Charles S. Crane, Grand Forks, who spent the winter in California on account of ill health, returned and resumed practice April 28.

OHIO

State Society Election.—At the sixty-fourth annual meeting of the Ohio State Medical Association, held in Cincinnati, May 5-7, the following officers were elected: President, Dr. Walter H. Snyder, Toledo; vice-presidents, Drs. Harry R. Geyer, Zanesville; Albert S. Rudy, Lima; Charles A. Hough, Lebanon, and Thomas M. Sabin, Warren; councilors, Dr. Robert Carothers, Cincinnati, first district, and Dr. T. Clarke Miller, Massillon, sixth district; member of the national legislative committee, Dr. Benjamin R. McClellan, Xenia, and committee on public policy and legislation, Drs. John W. Clemmer, Columbus; George H. Matson, Columbus, and Walter H. Snyder, Toledo.

Personal.—Dr. Homer H. Heath, Toledo, was thrown from an automobile in a collision with a telephone pole May 1, and sustained severe contusions of the right shoulder.——Dr. James O. Starr, Pittsburg, who underwent operation at Columbus, April 27, for a tubercular abscess, is said to be doing well.——Dr. Simon P. Wise, Millersburg, has been elected irman of the board of trustees of the State Sanatorium Tuberculosis, Mount Vernon.——Dr. Jacob A. Stout, mbus, was operated on for appendicitis, April 23, at St. thony's Hospital.

Cincinnati

Personal.—Dr. Clayton B. Conwell has been elected superintendent of the new State Sanatorium for Tuberculosis, Mount Vernon.——Dr. Frank E. Fee has left for a six months' tour of continental hospitals.

Faculty of Merged Colleges.—At the meeting of the board of trustees of the University of Cincinnati, May 4, President Dabney announced the following faculty for the Ohio-Miami Medical College, as the merged Medical College of Ohio and Miami Medical College will hereafter be known:

Department of Medicine—Drs. Henry W. Bettman, Mark A. Brown, Frederick Forchheimer, Oliver P. Holt, John E. Griewe, George A. Fackler, Benjamin F. Lyle, and Edwin W. Mitchell; Drs. Bettman, Brown, Forchheimer and Holt to have charge of the didactic teaching, Dr. Griewe charge of physical diagnosis, and Drs. Fackler, Lyle and Mitchell, charge of the clinical teaching.

Department of Surgery—Dr. Charles E. Caldwell, professor of the principles of surgery, and clinical professor of orthopedics; Dr. Robert Carothers, professor of the principles of surgery, and clinical professor of surgery; Dr. Nathaniel P. Dandridge, clinical professor of surgery; Dr. John C. Oliver, professor of surgery; Dr. Joseph L. Ransohoff, professor of surgery; Dr. Edward W. Walker, clinical professor of surgery, and Dr. Horace J. Whitacre professor of the principles of surgery.

Department of Therapeutics—Dr. Julius H. Eichberg, professor of pharmacology and materia medica, and Dr. Allyn C. Poole, professor of therapeutics.

Department of Pediatrics—Dr. B. Knox Rachford, professor of diseases of children.

Department of Obstetrics—Drs. William D. Porter, James Rowe, Magnus A. Tate, and E. Gustav Zinke, professors of obstetrics.

Department of Gynecoloy—Drs. Charles L. Bonifield, Charles A. L. Reed, Rufus B. Hall, and John M. Withrow, professors of gynecology.

Department of Ophthalmology—Drs. Stephen C. Ayres, Walter Forchheimer, Robert Sattler, Charles W. Tangeman, and Derrick T. Vail.

Department of Otology, Rhinology and Laryngology—Drs. Samuel E. Allen and John W. Murphy, clinical professors of laryngology and otology; Dr. Christian R. Holmes, professor of otology; Drs. Samuel Iglauer and Walter E. Murphy, adjunct professors of laryngology and otology; and Dr. John A. Thompson, professor of laryngology.

Department of Dermatology and Syphilology—Drs. Meyer L. Heidingsfeld and Edward H. Shields.

Department of Orthopedics—Dr. Albert H. Freiberg.

Department of Nervous and Mental Diseases—Drs. Brooks F. Beebe and F. W. Langdon, professors of psychiatry; Drs. Herman H. Hoppe and Philip Zenner, professors of neurology.

Department of Hygiene—Drs. Alexander G. Drury and John H. Landis.

The following professors will be salaried: Dr. William E. Lewis, professor of anatomy; Dr. Edmund M. Baehr, assistant professor of physiology, and Dr. Edward B. Reemelin, assistant professor of chemistry.

The following is an incomplete list of lecturers, demonstrators and assistants, selected by the professors of the various departments:

Department of Anatomy—Dr. Edwin M. Craig, lecturer on anatomy; Dr. Grear H. Baker, demonstrator of histology; Dr. Henry L. Woodward, demonstrator of embryology and clinical microscopy; Drs. Charles Maertz and Moses Salzer, demonstrators of anatomy.

Department of Therapeutics—Dr. Starr Ford, lecturer on dietetics and therapeutics, and Dr. Charles S. Rockhill, assistant.

Department of Diseases of Children—Drs. Alfred Friedlander, Franklin H. Lamb, and Albert J. Bell, adjunct clinical professors of pediatrics.

Department of Gynecology—Drs. John P. Miller, Joseph A. Hall, and Grear H. Baker, assistants and clinicians.

Department of Otology and Laryngology—Drs. Gustave A. Hinnen, Samuel Iglauer, and Walter E. Murphy, chief clinicians; Drs. William Mithofer, Robert H. Butler, and Albert E. Hussey, assistant clinicians.

Department of Ophthalmology—Dr. Wylie McL. Ayres, Victor Ray, and Frederick W. Lamb, clinical instructors, and Drs. John Rauly, Michael Behrman, and Frank B. Cross, assistant clinical instructors.

PENNSYLVANIA

Personal.—Dr. A. R. Atkinson has been re-elected health officer of Doylestown.——Dr. Aimé Lateve, head of the Magee Pathological Institute, Pittsburg, is reported to be in great danger on account of infection from hydrophobia.——Dr. Edgar Keeley, resident physician at Pottstown Hospital, has resigned.

Tuberculosis.—The Pennsylvania Society for the Prevention of Tuberculosis conducted a tuberculosis exhibition at Sellersville, May 4, and at Telford, May 8. In one year of active work the society has established a bureau of information, organized an employment exchange, conducted 649 formal talks and lectures, distributed 166,000 leaflets of instruction, secured the cooperative help of 159 organizations, opened two tuberculosis classes and one dispensary, gathered a tuberculosis exhibit which has been demonstrated in fourteen towns and cities and before 153,226 people, and established anti-tuberculosis societies in six cities and towns.

Bills Approved.—Governor Stuart signed the Salus cocain bill May 8. This bill provides that no person shall furnish, sell or give away cocain or allied drugs, except on prescription of an authorized practitioner of medicine. The maximum penalty for violation will be a fine of $500 and imprisonment for two years. The act, however, does not apply to regular traffic between dealers. The mere possession of cocain by any person other than a dealer is punishable by a maximum fine of $100 and imprisonment for six months, unless possession thereof is obtained through the medium of a prescription. Enforcement of the act rests with the State Pharmaceutical Examining Board, previous acts of this character being repealed. ——Governor Stuart has approved the Campbell pure drug bill. This is in line with the policy of the present administration, to enact laws fixing standards of food, drink and other articles taken internally. Recognized standards are fixed for drugs, and misbranding or adulteration is punishable by a fine of $50 for the first and $100 for each subsequent offense. District attorneys must institute proceedings on the State Pharmaceutical Examining Board reporting violations. The act will become operative October 1, and dealers may escape responsibility for stock on hand at that time by stamping each package with that date.

Philadelphia

Money for Department of Health.—At a meeting of Council's finance committee, April 6, $40,000 was appropriated to the work of the Department of Health and Charities.

Typhus Fever.—For the first time in seventeen years, typhus fever has been discovered in Philadelphia. Two cases were reported in Russian immigrants, and both patients were taken immediately to the Municipal Hospital and isolated.

Dispensary for Tuberculosis.—The new dispensary for tuberculosis, 1731 Orthodox street, Frankford, recently equipped by the state department of health, was formally opened April 28. It is known as Dispensary No. 107, will receive patients Mondays, Wednesdays and Fridays, from 2 to 4 p. m., and will be under the general supervision of Dr. Alfred Stengel and the immediate charge of Dr. W. G. Turnbull.

Personal.—Dr. Rush Baumann has resigned from the resident staff of Frankfort Hospital.——Dr. John G. Clark was honored by the senior class of the Medical Department of the University of Pennsylvania by having the class book dedicated to him.——Dr. Randle C. Rosenberger was given a dinner May 1 by his friends and colleagues in honor of his election as professor of hygiene and bacteriology in Jefferson Medical College.

Jefferson Alumni Day.—Plans have been completed for the entertainment of the alumni of Jefferson Medical College at the next annual commencement. June 7, commencement day, has been set aside as alumni day and reunions of several classes will be held. At 3:30 p. m. Dr. William W. Keen will hold a public clinic in the Jefferson Hospital amphitheatre. At 7 p. m. the annual business meeting of the Alumni Association will be held at the Bellevue Stratford, to be followed by the annual banquet. The subscription ($5) to the banquet should be forwarded at once to Dr. Alfred Heineberg, 1327 Pine street, Philadelphia.

TENNESSEE

Personal.—At the May meeting of the State Board of health, held in Nashville, Dr. Rufus E. Fort, Nashville, was appointed delegate to the American Medical Association, and Dr. Herbert Jones, Memphis, president of the board, was appointed delegate to the annual meeting of State and Territorial Boards of Health and Public Health and Marine-Hospital Service in Washington, June 2 and 3.——Dr. Nathaniel T. Dulaney, Jr., Bristol, has been appointed a member of the Lyon's View, Eastern Hospital for the Insane, near Knoxville. ——Dr. George E. Pettey, Memphis, has closed his Denver and Atlantic City retreats and will hereafter confine his work to his Memphis institution.

Commencements.—On May 3, the Medical Department of Vanderbilt University, Nashville, held its thirty-fourth annual commencement, graduating a class of 49.——A class of 11 was graduated at the third annual commencement exercises of the College of Physicians and Surgeons, Memphis, May 1.——The Medical Department of the University of Tennessee, Nashville, graduated a class of 41, April 30.——The twenty-ninth annual commencement exercises of Memphis Hospital Medical College were held April 30, and the degree of doctor of medicine was conferred on a class of 98.—The fifty-eighth annual commencement of the Medical Department of the University of Nashville was held April 30, when a clas of 61 was graduated.

GENERAL NEWS AND COMMENT

Warning Concerning Agent.—Readers are warned concerning one P. W. Corzilius, alias J. W. Holman. No money should be paid to one who gives either of these names and pretends to represent THE JOURNAL (or, in fact, to any one unless he possesses an unexpired letter of authority for making collections). When last heard of, Mr. Corzilius was in Ohio. THE JOURNAL is very anxious to find him, and will appreciate prompt information toward this end. He is about 55 or 60 years of age, 5 feet 4 inches in height, 160 pounds in weight, with gray hair and florid complexion. He dresses rather shabbily and his general appearance indicates alcoholism.

Loving Cup Presented.—Dr. James Henry Honan, on the eve of his retirement from the presidency of the Anglo-American Medical Association of Berlin, after several terms of faithful service, was presented with a loving-cup on behalf of the association. Dr. W. S. McFarland, Kentucky, presented the cup, and on the motion of Dr. W. J. Sweasey Powers, San Francisco, Dr. Honan was elected honorary president of the association.

Railway Surgeons Meeting.—At the annual meeting of the Association of the Norfolk and Western Railway Surgeons, held in Cincinnati, May 4, Dr. Stephen S. Haldemann, Portsmouth, Ohio, was elected president, and Dr. Thomas M. Baird, Crewe, Va., secretary-treasurer. It was decided to hold the next annual meeting at Norfolk, Va.

Climatologists to Meet.—The twenty-sixth annual meeting of the American Climatological Association will be held at the Chamberlain, Fortress Monroe, Va., June 4 and 5, under the presidency of Dr. Charles E. Quimby, New York City. The association will consider and discuss papers on climatology, tuberculosis, pneumonia and heart disease.

Therapeutists Meet.—The tenth annual meeting of the American Therapeutic Society was held in New Haven, Conn., May 7-9, and the following officers were elected: President, Dr. James C. Wilson, Philadelphia; vice-presidents, Drs. Alexander D. Blackader, Montreal; Howard Van Rensselaer, Albany, N. Y., and Robert T. Morris, New York City; secretary, Dr. Noble P. Barnes, Washington, D. C., and treasurer, Dr. A. Ernest Gallant, New York City. At the annual banquet, Dr. Oliver T. Osborne, New Haven, presided as toastmaster, and President Arthur P. Hadley of Yale College was the guest of *honor.*

The Carroll Fund.—The following subscriptions have been received since the last report:

Previously acknowledged	$3668.65
Dr. A. Shimonek, St. Paul, Minn.	2.00
Dr. E. C. Ellett, Memphis, Tenn.	10.00
Dr. Abram T. Kerr, Ithaca, N. Y.	5.00
Dr. R. C. Coffey, Portland, Ore.	5.00
Anonymous, Saranac Lake, N. Y.	10.00
Dr. D. W. Goodman of Mobile, Ala., at Port Limon, Costa Rica	5.00
Dr. Charles Gardner Child, Jr., New York	5.00
Officers of the Medical Corps of the Army	115.00
	$ 157.00
	$3825.65

The sum of $3,600 is still needed to raise the mortgage on this property. All remittances and pledges should be sent to Major Ireland, as previously announced.

FOREIGN

The International Medical Congress

The second pamphlet issued by the committee of organization of the Sixteenth International Medical Congress, to be held at Budapest August 29 to Sept. 4, 1909, has been received. Besides other announcements, it contains the programs for the six general assemblies and for the twenty-one sections, also for a general meeting to discuss the reports and communications on appendicitis and immunity. The reports will be in the hands of the members a month before the date of the Congress. The subscription fee of $5 (25 korona) should be sent to the treasurer of the congress, Prof. J. Elischer, Esterhazy-uteza 7, Budapest VIII, Hungary. In order to ensure accommodations, members are urged to engage lodgings in advance; the arrangements for accommodations and for numerous well planned excursions are in the hands of the Central Traveling-Ticket Office, IV, Vigado-ter I, Budapest, Hungary, which has arranged the lodgings on the hotel-coupon system, the amount to be paid at the time of the order; this amount, less $2.50, will be refunded if coupons are returned before August 20. Further details and circulars will be mailed by the officials to those interested on request.

The addresses at the six general assemblies are to be: "The Veins Open to Heroic Medicines," by G. Baccelli, of Rome; "Cancer," Bashford, of London; "Heredity, Survival of the Fittest and Hygiene," by M. Gruber, of Munich; "System of Postgraduate Instruction," by R. Kutner, of Berlin; "Exotic Pathology," by A. Laveran, of Paris, and "Artificial Parthenogenesis," by J. Loeb, of Berkeley, Cal. E. Holländer, of Berlin, will also deliver an address on "Representations of Disease in the Pre-Columbian Epoch." Among the addresses in the section on internal medicine are those by Osborne, of New Haven, on "Disturbances of the Internal Secretions, Clinically Considered;" Brauer, of Marburg, on "Adherent Pericarditis;" Ebstein, on "Leukemias;" Inman, of London, on "Immunity in its Relation to Practical Medicine;" Kraus, of Berlin, on "Serodiagnosis;" Lenhartz, on "Appendicitis from Standpoint of the Internist;" Huchard, of Paris, on "Arteriosclerosis of the Heart," and Ketly and Müller, of Budapest, on "Arteriosclerosis *in the Abdomen, Etc.;" von Noorden, of Vienna, on* "Obesity;" Pel, of Amsterdam, on "Tuberculin Treatment of Tuberculosis," and Maragliano, of Genoa, on "Serotherapy of Same;" Henschen of Stockholm, on "Accidental Anemic Murmurs;" Senator, of Berlin, on "Polycythemia," and Romberg, of Tübingen, on "Rôle of the Vessels in Internal Diseases Outside of Actual Vascular Affections." The twenty-two reports in the section on surgery include those by Harvey Cushing, of Baltimore, on "Cerebral Injuries;" McArthur, of Chicago, on "Opsonins," and Gerster, of New York, on "Progressive Peritonitis." In the section on obstetrics and gynecology Wertheim, of Vienna, will report on the "Ultimate Results of Abdominal Operations for Uterine Cancer," and Schauta, of Vienna, on the same by the vaginal route. The section on otology represents the Eighth International Congress of Otology, and has a long and varied list of reports, including those by Dench, of New York, on "Treatment of Acute Otitic Meningitis," and by Reik, of Baltimore, on "Mastoidectomy."

The Lenval prize for the best work on the physiology, pathology or anatomy of the organs of hearing published during the last four years is to be awarded at the closing session of the Congress.

The International Association of the Medical Press convenes just before the Congress, and a meeting will also be held open to all connected with the medical press, at which the aims and scope of the association will be described by de Jace, and the advisability of concluding summaries for all medical articles will be presented by Blondel, of Paris. Over forty-five pages of the pamphlet are filled with the titles of the reports, addresses and communications already enrolled. A subsection for *orthopedics* has been arranged, as also for professional and school hygiene in the section on hygiene.

Most of the European railways allow a reduction of 50 per cent., under certain restrictions, to the congress members. The list of members of the American committee was given in THE JOURNAL, June 13, 1908, page 2008, with various particulars in regard to the congress. Dr. J. H. Musser, 1927 Chestnut street, Philadelphia, is chairman of the American committee for the congress, and will send, on request, the circulars, etc., already issued.

LONDON LETTER

(From Our Regular Correspondent)

LONDON, May 1, 1909.

Action by a Physician Against a Hospital for Injury During an Operation

An extraordinary action has been brought against the governors of St. Bartholomew's Hospital. A physician who had returned from West Africa suffered from attacks of sciatica and was admitted March 28, 1907, in order that he might be examined under anesthesia. He alleged that he was placed on an operating table in such a position that his arms were allowed to hang over its sides, that his left arm was in contact with a hot-water bottle projecting from beneath the table, that the inner part of his right arm was bruised by the operator or some other person pressing against it during the operation, and that the result of these injuries was traumatic neuritis and paralysis of both arms which had since prevented him from following his profession. The examination was undertaken gratuitously, as he had come to the end of his resources. The defendants denied the alleged negligence and pleaded that if they owed any duty to the plaintiff it was to exercise reasonable care in the selection of the hospital staff, in which they had not failed. Dr. Risien Russell, who saw the patient soon after the examination, was called. He found him suffering from paralysis of the left arm and partial paralysis of the right arm, which was due to neuritis. He never knew of a case in which a burn caused by a hot water bottle resulted in paralysis. The plaintiff gave evidence that the day after the operation the warden and the house surgeon of the hospital told him that his arm had not been supported while he was under the anesthetic. They could not account for the burn on the arm unless it had come in contact with the hot water bottle or some hot apparatus. He admitted that when the sciatica became acute he began to inject morphin and that he took a certain amount of alcohol when in West Africa. Mr. Justice Grantham, in giving judgment, refused to allow the case to go to the jury as it was involved in doubt as to the facts; he therefore dismissed the case.

Objections to the X-Ray Treatment of Ringworm of the Scalp

The proposal of the London County Council to follow the example of Paris and provide *x*-ray treatment for ringworm of the scalp of school children has aroused discussion on the dangers of the method in the lay press. In accordance with the well-known selective action of the rays on rapidly growing tissues, Dr. Dawson Turner, an old worker with the rays, suggested in the *Times* that the treatment might injuriously affect the delicate cells of the growing brain of a child. The antivaccinationist, antivivisectionist, and in general antimedical *Star* took up the cry and in an editorial entitled, "The War Against Children," described the suggestion to apply the *x*-rays to the delicate cells of the child's brain without the parent's consent as criminal. A representative of the *Times* discussed the subject with a number of well-known electrotherapeutic experts and all expressed the view that however harmful the *x*-rays might be if unskilfully managed, there is no reason to think that any injurious effects would follow their use in the treatment of ringworm, provided this is controlled by a skilled operator. The exposure is of short duration and the apparatus has been so perfected, in the light of the terrible experience of the pioneers in its use, that there is no reason to suppose that properly used the rays would do more than eradicate the ringworm. Dr. E. S. Worrall, chief of the electrotherapeutic department of University College Hospital gives three applications of short duration in one week and after three weeks the patient is absolutely bald and cured. After three months the hair begins to grow again vigorously. He has never known of any case of injury from this treatment or even from the treatment of lupus, in which ten or twenty times the exposure is necessary. Dr. C. R. C. Lyster, chief of the electrotherapeutic department of the Middlesex Hospital has treated over 600 cases with similar results, but he takes extraordinary precautions against risks.

Ambassador Tries to Evade Paying His Physician

It has seldom happened that a doctor has had to sue an ambassador for the payment for his services. In the Marylebone county court, Dr. A. S. Currie sued Gen. E. M. Teran for $53. When the claim was filed the defense was set up of immunity from process on the ground that the general was envoy and minister plenipotentiary to this country from the republic of Ecuador. But when the case came into court he had received letters of recall; a letter was read from the foreign office stating that after his recall he could not claim immunity from process on account of his diplomatic position. The claim was for attendance on the general's children in 1907. The physician tried to get his fees then, but the plea of immunity was set up. He therefore decided to wait for the expiry of that position. The judge gave judgment in favor of the physician with costs.

Zinc Poisoning

An unusual form of poisoning—by zinc—is reported from Newport, Wales. An inquest was held on a girl, aged 13, who became unconscious and died soon after a supper of chipped potatoes purchased at a shop in the town. Traces of zinc were found in the contents of her stomach and the metal was also found in the oil used for cooking the potatoes and in the potatoes themselves. The cooking pans were coated with an alloy of zinc. It was thought that the action of the oil, combined with the process of cleaning the pans, had enabled the zinc to become incorporated with the potatoes.

PARIS LETTER

(From Our Regular Correspondent)

PARIS, April 29, 1909.

The General Association of French Physicians

The General Provident Benefit Association of Physicians of France on April 25 celebrated in the sessions hall of the Academy of Medicine the fiftieth anniversary of its foundation. The opening session was presided over by M. Viviani, minister of labor, assisted by a representative of the ministry of public instruction and by Dr. Lereboullet, member of the Academy of Medicine, and president of the association. All the provincial societies affiliated to this association sent delegates. Addresses were read by Dr. Lereboullet, who briefly related the history of the association, and detailed the different stages through which it has passed; by Dr. Lepage, agrégé at the Faculty of Paris, and general secretary of the association, who explained the moral and financial status of the work; and by Professor Livon, director of the Marseilles school of medicine, in the name of the local societies.

The association has a double aim. It assures life pensions to aged or invalid members and assists the widows and orphans of those deceased. On the other hand, it defends the professional interests of physicians whenever they are menaced or at stake. It numbers at present nearly 10,000 members, belonging to 94 local societies. It is, as a matter of fact, a federation of societies. All the local societies are autonomous and control their own membership and funds and the discussion of all questions that interest them, as well as take note of the abuses of which physicians are often victims.

In regard to this autonomy of the local societies, the general council of the association never refuses to take notice of the resolutions transmitted to it by the local societies, but it places the onus of deciding the points under consideration on the general assemblies, which take place once a year, and in which only the members of the general council and the presidents and delegates of the local societies can take part. A vigilant guardian of the statutes of the association, the general council contents itself with replying to the points submitted to it, taking care, in the words of the statutes themselves, "always to maintain the practice of the art of medicine in the paths of utility to the public good and conformable to the dignity of the profession."

The association receives important gifts and legacies. The bequest made recently by Dr. Gille of Garches, amounted to more than 400,000 francs. The entire fortune of the association, including the property of the 94 local societies, is, at the present time, some 5,468,557 francs. This figure indicates the wisdom with which the association has been administered. It has, it is true, been sometimes accused of too strict economy, and of not relieving effectively enough the distress of the profession. But it must not be forgotten that, in its capacity as a mutual benefit society, the association can intervene in favor only of its members, their antecedent kin, widows and orphans. Restrained by its statutes it can not come to the assistance of *confrères* who have no part in it.

On the other hand, in order not to overstep the revenues of the life pension fund, the general council has fixed, as conditions of eligibility for the pension of 1,000 francs, an attained age of 70 years and a minimum membership of 35 years. But as soon as the resources of the benefit fund shall become sufficient, that is to say, in the not distant future, the council proposes to make all the pensions uniformly 1,000 francs.

School Sanitary Records

The French League for School Hygiene, of which I have had occasion to speak in a previous letter (THE JOURNAL, Sept. 26, 1908, page 1094) has taken a very active part in the establishment of individual school sanitary records, the purpose of which is to safeguard the health of the child throughout the entire school period. But a certain number of physicians are disturbed by this institution, fearing lest the school physician, being called on to place on the record the results of the periodical examinations that he makes, may in some way prejudice the ordinary physician of children.

For this reason, and to avoid all misunderstanding, the league has just formulated the aim and scope of the school record. The league reminds us that the school physician is to put on the record only the findings of his own examination, enabling him to determine that the general health of the child (weight, height) is or is not satisfactory; that certain symptoms or apparatus (lymphatic, teeth) are or are not normal; that certain organs (eye, ear) are functioning well or ill. Thanks to these regulations, the school physician will be able, without defining either the nature or the cause, to inform the parents that the growth of the child is not good, that its general health is poor, that the functioning of certain organs is defective. At the same time he will point out the necessity of having the child examined by the family physician, who alone can establish the diagnosis and institute the treatment. Thus the parents will be given the opportunity to submit the child to examination by their physician and entrust it to his care, which they would in all likelihood not have done, or would have done too late, if they had not been warned in time by the school physician.

The school physician has no further control to exercise, either in regard to diagnosis or treatment of the physician in charge of the case, whom he should ignore. The only justification of his warning to the parents will be to renew them at his later periodical examinations, if he finds the same conditions as on the preceding occasion.

Under these circumstances there is no reason for disquietude in the intervention of the school physician and in the institution of the individual sanitary record, either as to violation of the professional secret—since there will not be any diagnosis made or written, and the physician alone will have charge of the records established by him—or as to any antagonism between the school physician and the physician in charge; the rôle of the first being limited to pointing out to the parents the necessity of submitting the child to the physician and placing it under his care.

BERLIN LETTER

(From Our Regular Correspondent)

BERLIN, April 21, 1909.

First Aid Service

The Berlin first aid service was established about ten years ago, and so far has been somewhat defective. The earliest arrangements for this purpose were made by the trade unions (*Berufsgenossenschaften*) in connection with the accident stations established by them in which injured persons were received, for which the *Berufsgenossenschaften* were responsible. As by means of these arrangements the material derived from these injuries was withdrawn from the Berlin hospitals and clinics, the Berlin physicians, under the leadership of Professor von Bergmann, organized a first aid association, of which every Berlin physician might be a member. A large number of Berlin hospitals became first aid stations in which injured persons were received. In addition to these two organizations, there exists still another of long standing, the so-called "sanitary watch" (*Sanitäts-Wachen*), which is open only part of the day and part of the time only provided with an assistant, and in fact simply serves to furnish temporary aid in injuries and sudden accidents. From the similarity of the work of these three institutions there arose all sorts of difficulties from competition, especially between the Berlin first aid association, which provides a general medical institution, and the accident stations which endeavored to monopolize the first aid service. The repeated efforts to convert the entire first aid service into a city institution were not successful. An improvement was made three years ago when a central station of the Berlin first aid association was established in the city hall, at which there could be learned at any time the number of available beds in the various hospitals and ambulances could be ordered, and at the same time the city council was requested to enter into negotiations for a further transfer of the arrangements for first aid to the authority of the city. A year afterward six first aid stations were taken over by the municipality, but a municipalization of the first aid service has not yet been secured. On the other hand, the hospitals have been taken under municipal supervision and are chiefly supported by the city. The accident stations are no longer to treat permanently as formerly the patients who are injured in the trades, but *only to furnish first aid* as is done by the first aid stations conducted by the first aid association. At every accident station there shall no longer be as formerly a service by a few physicians, appointed by the trades union, but at least ten physicians shall be stationed at each station who shall be selected by the association of physicians for the Berlin first aid service and shall be under the oversight of the executive committee of the medical society. In this way as many physicians as possible may participate in the first aid service and there will be a change of physicians in attendance every two hours during the day. The fee for the day service will be 1 mark an hour (25 cents) and 8 marks for the entire night ($2.00). The city assists the first aid service with 60,000 marks ($14,400), the accident stations with 75,000 marks ($18,000) and the *Sanitäts-Wachen* with 36,000 marks ($8,640). Thus at least a sufficient groundwork is made for the first aid service of the city and it may be hoped that on this basis further improvement will gradually be made.

Instruction in Hygiene in the Army

The soldiers are instructed from their entrance into service regarding the care of the body. The under officers are instructed once or twice a week by the use of a small pamphlet on hygiene for soldiers, regarding the care of the feet, cleansing the hands, care of the teeth, and these officers give lessons to recruits. A copy of the book on hygiene is placed in every barrack so that the soldiers may inform themselves in their leisure hours. The privates are especially instructed in the care of the teeth by an assistant surgeon and it is required that each man shall have a suitable tooth brush. By order of the physician of the general staff each physician who makes sanitary inspection of soldiers at certain intervals shall use this opportunity to discuss matters of hygiene with the men *in a manner generally intelligible*, especially regarding the character and prevention of sunstroke, regarding the dangers of excessive use of alcohol, the prevention of venereal diseases and the like. In a similar way the officers are occasionally instructed by sanitary officials.

VIENNA LETTER

(From Our Regular Correspondent)

VIENNA, April 28, 1909.

The International Medical Congress at Budapest

Great interest is shown in the proceedings of the medical congress, to be held at Budapest August 29 to September 9, and great anxiety has been felt in Hungarian and Austrian medical circles about its success, for it was endangered by the threatening war. Happily this has been warded off. In Austria-Hungary, especially in Hungary, medical science is mostly in young hands, and these men are anxious to show their progress. The number of communications to the congress is already large and will no doubt increase vastly before the convention meets. As all the proceedings of the congresses appear regularly, though much belated, in our medical journals, there will be much work for the journal committee. At least 500 members are expected, not counting those from America and Africa. [See also page 1591.—ED.]

The New Regulations Concerning Disinfection

About one year ago, new rules as regards disinfection after contagious diseases were put in force and at a meeting of the board of health, the report of the directors of the disinfection department was read. There are two chemicals used in all disinfection, by public health authorities, for inhabited places: sprayed or, preferably, vaporized formaldehyd; if this is not possible or not effective oxycyanid of mercury is used. This is transported in a 5 per cent. solution by the disinfecting staff, who have to dilute the liquid until it is 0.25 to 0.5 per cent. strong, according to the object to be disinfected. The public lately prefers the second method because of its cheapness and absence of odor. The parties, however, who are willing to pay for the expense, may have their rooms and clothing disinfected either by carbolic, steam or formalin. There are five large steam disinfectors in the possession of the board of health, each capable of holding 25 cubic meters (about 7,000 cubic feet), and a sixth one is being constructed. A special series of regulations deals with prophylaxis against special diseases by the members of the disinfecting staff themselves, for instance, after the conclusion of his work each man must change his clothes for sterile ones, while the garments he has worn are disinfected. In the ten months ended March, 1909, 16,000 rooms in 5,000 houses and 112,000 articles belonging to 12,620 persons were disinfected, and all this work is done gratis, as the rate-payers have to find the sums necessary for the board of health. The expenditure was a little over 50,000 crowns ($10,000).

Defects of the Public Nursing System

An unhappy incident in one of our largest institutions for the care of the insane has thrown light on a grave defect in the otherwise really enlightened and satisfactory administration of this asylum. A patient, who was somewhat troublesome during the night, was so treated by three male attendants who were trying to quiet him, that he died soon afterward. A postmortem inquest showed that death was due to fracture of the thyroid cartilage, and it appeared that the attendants had tried to overcome the maniacal patient by wrapping him in a wet sheet, contrary to the rules of the asylum. This they succeeded in doing only after a severe struggle. The lack of good nurses and attendants has been admitted by all hospitals. In fact, there are very few well-trained nurses of better classes at present available. The public here does not yet realize the necessity of fully competent persons for the care of the sick. As a rule, the social standing and the pay of nurses are very low here; and strenuous efforts are being made by private hospitals to educate and train proper nurses for their own benefit. In public hospitals things are worse, except where the members of a religious sisterhood are employed. It is now planned to induce sisters to take over the charge of wards in public hospitals to the exclusion of lay nurses. Male attendants in asylums are still less satisfactory than the lay female nurses, for the pay is so very low that any able-bodied man may earn twice as much by any work with much less toil and responsibility. The sad incident mentioned above has excited much public comment and condemns the present system of misplaced economy. Already a list of requirements has been published for male attendants in public hospitals which will enable the directors to employ none but reliable persons—if the necessary funds are provided.

Association News

THE ATLANTIC CITY SESSION

Program of Entertainments—Prospect of a Large and Successful Meeting

Word is received from Atlantic City that details are being perfected in a satisfactory manner for the Sixtieth Annual Session of the American Medical Association, to be held June 8 to 11. We print below a list of the entertainments arranged for the visitors on this occasion. This complete list was *not* ready in time to be included in the Atlantic City Number of THE JOURNAL, May 1.

We call attention to this Atlantic City Number. It contained many pages of details concerning the session. The programs of papers to be read in the scientific sections were given, showing the elaborate and comprehensive series of discussions which await those who will attend.

A large list of hotels was given with rates, and all were urged to secure their accommodations in advance, in order to save trouble on arrival at Atlantic City. There can never be a suggestion of inadequate hotel accommodation in this city of hotels, but it sometimes happens that the preferred space in some particular hotel—perhaps the one most desired—is entirely filled.

A slight error occurred in the May 1 issue, in that the Hotel Ponce De Leon was located on Maryland avenue instead of Virginia avenue, and the Imperial Hotel on Virginia instead of Maryland.

Railroad tickets will be validated on Young's Old Pier, near the Commercial and Scientific Exhibits, as in previous years.

We are asked to call attention to the Informal Tea for the ladies, mentioned in the following program of entertainments. This is a new feature which deserves attention, as a special endeavor will be made to have it a most notable occasion. This function will take place at the Hotel Chalfonte, Tuesday, June 8, 4 to 5 p. m., and all ladies who attend the session are most cordially invited to be present at this, as well as at the other events arranged especially for them during the week.

PROGRAM OF ENTERTAINMENTS

(The official members' badge, or one of those provided for ladies and guests, will be required for admission.)

Tuesday, June 8

AT THE CHALFONTE HOTEL

4 to 5:30 p. m.—An informal tea will be given to the visiting ladies of the American Medical Association by the ladies' committee of Atlantic City.

AT HOTEL ROYAL PALACE

9 p. m.—Alumni reunion and smoker, Jefferson Medical College.

AT HOTEL ISLESWORTH

9 p. m.—Alumni reunion and smoker, Medico-Chirurgical College (Philadelphia).

The following medical colleges will hold alumni reunions: Dartmouth, Rush, University of Vermont, Long Island. A full list will be announced later.

Wednesday, June 9

ON THE BEACH OPPOSITE TENNESSEE AVENUE

12 noon—For visiting ladies: Exhibition of rescue by the Atlantic City Life Guards, directed by Beach Surgeon Dr. J. T. Beckwith.

FROM VENTNOR BOAT CLUB HOUSE

2:30 to 5:30 p. m.—Sailing parties for ladies will leave Ventnor Boat Club House at short intervals.

AT MUSIC HALL, STEEL PIER

8:30 to 10 p. m.—Reception to the President, Dr. William C. Gorgas.

AT MUSIC HALL, STEEL PIER

10 to 12 p. m.—Dancing.

Thursday, June 10

AT YOUNG'S MILLION-DOLLAR PIER

11:30 a. m.—Public exhibition-hauling of seine (courtesy of Mr. John L. Young).

AT THE PLAZA, MARLBOROUGH-BLENHEIM

4 to 6 p. m.—Ladies' reception.

AT MARINE HALL, STEEL PIER

8:30 to 10:30 p. m.—Musical cycle.

AT MUSIC HALL

8:30 to 10:30 p. m.—Musicale (Metropolitan Orchestra, with soloists).

AT ISLESWORTH CAFÉ, VIRGINIA AVE. AND BOARDWALK

10:30 to 12 p. m.—Vaudeville and smoker.

AT NEW BERKLEY CAFÉ, KENTUCKY AVE. AND BOARDWALK

10:30 to 12 p. m.—Vaudeville and smoker.

[*Vaudeville and Smokers for gentlemen and ladies.*]

The Country Club House at Northfield will be open to the physicians and ladies during the entire meeting.

The Atlantic City Yacht Club extends the courtesy of its club house during the meeting.

Pharmacology

HOWELL'S MERCOL AGAIN

Another Analysis Fails to Reveal the Presence of Mercury

During the latter part of last year a physician of Hot Springs, Ark., wrote asking for information regarding a preparation known as Howell's Mercol, manufactured by H. B. Howell & Co., Ltd., New Orleans. The preparation was, and is advertised as a 1 per cent. solution of mercuric iodid in a non-irritating neutral menstruum recommended for hypodermic use in the treatment of syphilis. The physician above referred to expressed some doubt as to the amount of mercury the product contained, for while he admitted that it was non-irritating, he claimed to have been unable to get either the physiologic action or therapeutic results of that drug. The matter was therefore taken up and at the request of the secretary of the Council on Pharmacy and Chemistry, Drs. Reid Hunt and Atherton Seidell of the Hygienic Laboratory of the Public Health and Marine-Hospital Service undertook its examination. The result of this examination was published in THE JOURNAL, Jan. 16, 1909, page 225. As will be remembered the analysis showed that Mercol contained no mercury, or if any at all, but the merest trace. The examination, which was exceptionally exhaustive, should have revealed the presence of mercury had it been present.

After the publication of the results of this investigation on Mercol, Dr. J. M. Magruder of New Orleans wrote to THE JOURNAL protesting for Howell & Co. "that the firm has no desire to foist on the medical profession or the public a fraud." Dr. Magruder, who says he is family physician to the head of the firm, described his visit to Howell & Co.'s place of business, where he witnessed the manufacture of Mercol, weighing out the ingredients and watching the process until the finished product was bottled. With his letter to us he sent a sample of this particular batch of the product which at once was forwarded to Drs. Hunt and Seidell of the Hygienic Laboratory, with the request that they examine it. This they did and the results were the same as before; that is, mercury was not present or if so, only in an infinitesimal amount.

What do these results mean? Here we have a firm claiming that its product contains 1 per cent. of mercuric iodid and we also have a physician, whose honesty is unquestioned, asserting that he had seen this amount of mercury salt used in making the product. Yet chemical analysis demonstrates that mercuric iodid is, to all intents and purposes, absent. Evidently in subjecting the various ingredients to the "process"—the nature of which is not disclosed—necessary for the production of the finished article, instead of achieving the feat of dissolving the mercuric iodid in the non-irritating neutral menstruum, the "process" eliminates this drug altogether. Knowing nothing about the "process," it is idle even to try to guess what may have occurred to dissipate the essential, and it is claimed the only potent drug in the preparation. Hypotheses in such a case are valueless; the important fact, and the one that vitally concerns both patient and physician is that the finished product fails to contain the ingredient on which the value of the product depends. To a syphilitic relying on the well known remedial effects of mercury supposed to be present, this fact has more than an academic interest.

It is not sufficient for a manufacturer to claim honesty and good faith. In the making of remedial agents sins of omission may be as potent for harm as sins of commission; ignorance or incapacity may be as deadly as dishonesty or fraud. It is the duty, as well as the business, of a drug manufacturer to base his claims on his finished products, rather than on the component parts used in their manufacture.

That the firm is satisfied with Dr. Magruder's proof of its own honesty is evident, for we find his letter to THE JOURNAL reproduced in the "Publisher's Notes" department of the *New Orleans Medical and Surgical Journal*, April 1909. This, too in spite of the fact that we wrote Dr. Magruder, Feb. 6, 1909, informing him of the negative results of the analysis of the sample made under his observation. If Messrs. Howell & Co. have made an honest mistake in supposing they could produce a 1 per cent. solution of mercuric iodid in liquid petrolatum they will see that the mistake is corrected; if, on the other hand they are governed by commercial considerations only, they will doubtless continue to perpetuate the same misrepresentation.

BRUSH'S REMEDY FOR SEASICKNESS

W. A. Puckner and W. S. Hilpert

[CONTRIBUTION FROM THE CHEMICAL LABORATORY OF THE AMERICAN MEDICAL ASSOCIATION]

As a number of inquiries have been received regarding a much advertised "Brush's Remedy for Seasickness," the preparation was subjected to analysis in the Association's laboratory. The report follows:

"Brush's Remedy for Seasickness" is sold in five-ounce bottles in which are blown the name and the use of the preparation. Besides giving the name and use of the preparation, the label contains the following statement:

> It is confidently claimed that this preparation will prevent seasickness and car sickness if used strictly in accordance with the following directions:
>
> A dessertspoonful in a wineglass of water every three hours commencing at least 24 hours before sailing and repeating the dose occasionally during the voyage.
>
> "The Brush Chemical Co., New York, N. Y."

A small six-paged pamphlet that goes with the bottle more fully elaborates on the claimed virtues of the "remedy." The following are specimen statements taken at random from the pamphlet:

> "The only known specific that will invariably prevent *mal de mer*."
>
> "Seasickness positively prevented."
>
> "[illegible] is totally harmless and has not the slightest unpleasant effect on the heart or circulation."

In addition to other equally broad statements and comments, several testimonials are given to convince the skeptical.

The "remedy" is a light yellow liquid, without odor, but with a decidedly acid taste. Qualitative tests demonstrated the presence of citric acid and sodium bromid, but the presence of other acids, metallic radicles or any alkaloids could not be demonstrated. Quantitative determinations[1] showed the presence of 14.94 gm. sodium bromid and 2.71 gm. citric acid per 100 c.c. of the preparation. A small quantity of an organic coloring matter was also found.

From the results of the chemical analysis of "Brush's Remedy for Seasickness" it is concluded that it is essentially a solution of citric acid and sodium bromid, and hence has the value only of these ingredients.

Medical Advertisements in the Lay Press

An article entitled "Protecting the Magazine Reader from Advertising Frauds" appeared recently in *Printer's Ink*, in which the struggle for a "clean up" in advertising is recounted. Reference is made to a rule early established by the Curtis Publishing Company—whose sole publication at that time was the *Ladies' Home Journal*—that "no advertisements of a medical or curative nature" would be accepted. Justification of this rule is given on the following grounds: "It is possible that under this ruling a few—a very few—worthy remedies are excluded, but it would be practically impossible for a publisher to discriminate, with absolute justice, in this class of advertising, nor is it possible to recommend any remedy, however good, without reserve, to an army of millions of readers."

The last mentioned objection to medical advertising applies without question to every "patent medicine" that has ever been foisted on a self drugging public.

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[1] (a) The presence of citric acid and the absence of other acids having been demonstrated, the amount of citric acid was determined by titration with standard alkali. 10 c.c. of the remedy required for neutralization an average of 39.16 c.c. tenth normal alkali which is equivalent to 0.2488 gm. citric acid or 2.71 gm. per 100 c.c.

(b) The bromin was determined as silver bromid in the usual way. In this manner 10 c.c. of the remedy diluted to 100 c.c. and 10 c.c. portions used yielded (a) 0.2724 gm. silver bromid, (b) 0.2725 gm. silver bromid averaging 0.2725 gm. which is equivalent to 1.494 gm. sodium bromid per 10 c.c. of the remedy, or 14.94 gm. per 100 c.c.

As a check sodium determinations were made and the sodium sulphate obtained calculated to sodium bromid. It was found that in one case 10 c.c. of the preparation yielded 0.9900 gm. sodium sulphate and in another case 0.9904 gm., giving an average of 0.9902 gm. This was equivalent to 1.435 gm. sodium bromid or 14.35 gm. per 100 c.c. which agreed sufficiently with the sodium bromid calculated from the bromin determination to demonstrate that the sodium and bromin are present in molecular quantities.

Correspondence

A Disclaimer from the Mayo Brothers

To the Editor:—We have been advised not to pay any attention to the publicity given us by an article appearing in a recent issue of *Human Life*.

Inasmuch as we have on several occasions suffered public humiliation of this character, it does not seem unreasonable that we should state our position exactly, because, while we have the assurance that our friends and acquaintances fully understand our attitude as professional men toward the public, it is of course impossible that we should know personally all the practitioners of medicine in this country, and we desire the respect and esteem of all. Our endeavor is, has been, and will continue to be, in strict accord with both the letter and the spirit of the ethics of the medical profession.

In 1905 one of us was elected president of the American Medical Association, and as this was a great honor to come to a young man living in a small town, who was practically unknown outside of the medical profession, it attracted considerable attention among the laity. About this time there appeared in *McClure's Magazine* an article written by Samuel Hopkins Adams, descriptive of a number of men in the profession, ourselves among them. Mr. Adams wrote his review with true journalistic instinct and characteristic vigor. It was not so much what he said as the striking manner of saying it that called public attention to us, and since that time we have, on several occasions, been subjected to the annoyance of having our private affairs made into "news." Before then we had never been "written up," our names had never been brought prominently before the public, and we were known only through our professional work.

Shortly after the article appeared in *McClure's*, various persons came to Rochester to obtain sensational data for publication. These people talked with hack drivers, barbers, the people on the street, and took "snap shots." One of them secured old photographs, which are printed in the article in *Human Life*. With the greatest possible effort we succeeded in heading off the publication of a number of these articles.

In 1907 an article concerning us was published extensively in the Sunday supplement of a group of newspapers. We promptly wrote a letter to THE JOURNAL of the American Medical Association disclaiming all knowledge of it and stating that we would take legal steps for redress. *Human Life* republishes substantially the same article.

The article is filled with exaggerations and untruths, and is written in a style most offensive to any one accustomed, as we have been, to regard professional ethics carefully. It seems incredible that any fair-minded man in the medical profession could read this article and believe that we had anything to do with its production. The author states that W. W. Mayo, who is a man 90 years of age, and twenty years retired from practice, gained his diploma in the "school of experience," intimating that he was not in regular standing in the profession. As a matter of fact, W. W. Mayo graduated from the Missouri Medical College in 1854.

A large number of men in the profession received marked sample copies of this particular number of *Human Life*, and within a few days a letter calling attention to the article and soliciting subscription. Strange as it may appear, some of these men have taken the matter seriously, disregarding the facts that we have always been honorable practitioners, have had an established practice for years, and have received many honors from the medical profession, and that any such action on our part could add nothing but injury to our professional standing, and a disagreeable notoriety. We consider any such supposition in regard to our integrity not only as an insult, but as an affront to our intelligence. One can appreciate how such action might be believed of one man, but it is incomprehensible how any one could suppose that two men over 40 years of age, and one at the age of 90, would deliberately take measures to discredit the work of a lifetime.

It really seems as though the facts in the case might constitute a basis of legal action for libel. We had the matter up two years ago with our attorneys regarding the first appearance of this article. They informed us then that it was not legally a libel for the reason that newspapers had a right to comment on men, their business and their actions, and the courts held that if no injury or discredit was intended, the offense was not actionable. As one of the attorneys said: "Do you suppose for a moment that the wizards of oil and finance would allow themselves to be commented on by the press in the way they are if they could prevent it? If they with all their money and influence can not stop it, how can you expect to do so?" However, this last offense seemed on the face of it, to us and to many others, to constitute a libel, but we, find, unfortunately, that the courts have ruled otherwise.

We herewith submit an opinion from our attorneys.

WILLIAM J. MAYO,
CHARLES H. MAYO.

DRS. W. J. AND C. H. MAYO, Rochester, Minn.

Dear Sirs—We have carefully read the article published in the April, 1909, issue of *Human Life*, entitled, "The Mayos, Father and Sons." We note also your statement that this article was written and published without your knowledge or consent, and that thereafter copies of the publication containing it were sent to many of the medical profession, marked "sample copy," and that a few days later letters from publishers to members of the profession followed, calling attention to the article and soliciting subscriptions to the periodical containing it, all of which might inspire on the part of some the inference that you gentlemen had instigated or assented to the publication, which is the highly objectionable feature of the matter, and the cause of your complaint.

You ask our opinion as to what legal redress you have against *Human Life* on these facts. It is our opinion that you have no legal redress whatever. Two questions arise under these facts:

1. Was the article libelous?
2. If not libelous, was the act of mailing the sample copies to the profession an implied statement that it was done at your instigation, or with your consent?

While the article is an exaggeration, and in many respects untrue, in our opinion it is not libelous.

To constitute a libel the printed publication must either falsely charge a person with the commission of a crime or by false statements hold him up to ridicule or contempt of his fellowmen. The article in question does neither in a legal sense.

Whether or not the mailing of the marked sample copies constitutes an implied suggestion that it was done at your instigation or with your consent, admits of some doubt, but we are of the opinion that it does not. Whatever the real motive may have been in mailing these copies in this particular instance, the courts will take judicial notice that it is the custom of publishers to mail sample copies of their periodicals as a means of soliciting subscriptions, and, of course, that will be the purpose asserted in this case; hence if the original publication of the article did not constitute a libel, the sending out of marked copies would not do so. If the publishers were strictly within their legal rights in the publication of the article in question, the mere fact that the certain uninformed members of your profession might infer your connection with the publication, or that certain hostile members might make it a pretext by which to slander you, does not change the legal situation.

There is no doubt that you have been injured in the premises, from an ethical standpoint at least, but your case is known to the law as one of *damnum absque injuria*, or, in other words, injury without legal damage.

BROWN, ABBOTT & SOMSEN, Winona, Minn.

School Hygiene

To the Editor:—Dr. Gulick's article in THE JOURNAL, Jan. 10, 1909, recalls to my mind many of my experiences in Cleveland during the nine years, 1895 to 1904, when, under one title or another, I served the superintendent of instruction in the purely advisory position of supervisor of school hygiene. Examination of the school records would show some betterment in sanitary conditions in the Cleveland schools. The best results were attained after the appointment by the board, out of its membership, of a committee on school hygiene. Later, through the intervention of powerful enemies this movement received a setback, and for five years Cleveland has had no department of school hygiene.

Thirty-three states have legislated on different aspects of school hygiene and all these enactments together form an array of sanitary legislation. Six years ago I secured the introduction into the Ohio State Legislature of a bill regulating the sanitary supervision and construction of schools. It met with no particular opposition and had there been money in the state treasury for its effective administration by the State Board of Health, it would probably have been pushed and passed; but unfortunately it came up at a time when the governor was opposed to all bills requiring appropriation. Since then no one has had interest enough to keep after it.

As to the introduction of school hygiene departments by boards of education in cities, I fear we can not hope for anything effective until we adopt government by commission, as in the case of Galveston or Berlin. At present, on account of the innumerable school and city officials, it is difficult to get attention for matters of this sort, for they are crowded out by the hustling political interests. It is difficult to educate a school or city official to an appreciation of sanitary values, and by the time this has been accomplished in any give case, some political revolution removes this supporter and everything has to be begun over again. Members of city boards of education are paid little or nothing, so that they usually delegate such school business as there is, to the officials they find in charge, and continue to give the best of their personal efforts to their own affairs, so that specialists in their employ are not understood or appreciated. Their work is not properly classified and coordinated by boards, and more or less conflict from the clashing of interests results.

There is a place in city schools at present for a few well trained school sanitarians with school officials who appreciate the value of school hygiene, but I fear such positions are the exception.

LEIGH K. BAKER, Cleveland, O.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish name or address will be faithfully observed.

BLOOD PRESSURE ESTIMATION

To the Editor:—What are the relative merits of the following forms of blood pressure apparatus: von Recklinghausen, Riva-Rocci, Stanton and Janeway? Which is the better for determining the systolic and diastolic pressure? Please give literature on blood pressure.

EDWARD P. FICK, Seattle, Wash.

To the Editor:—What sphygmomanometer is best suited for the general practitioner's use? Please give literature on the subject of arterial tension.

A. L. BRAMKAMP, Richmond, Ind.

ANSWER:—The sphygmomanometers on the market in general use are the Janeway and Stanton. The Stanton is perhaps the most durable for office and hospital work and is easily transportable without danger of breakage or escape of mercury. It has an 8 cm. armlet. The Janeway instrument has a 12 cm. armlet, is put up in more compact form and is consequently still better adapted for use in visiting practice. The Riva-Rocci instrument is liable to loss of mercury and breakage of the glass when transported. For systolic pressure any of the above instruments is quite accurate. The Riva-Rocci is somewhat less accurate than the others, as the means for producing change in pressure does not permit as accurate regulation. The von Recklinghausen instrument is undoubtedly the best for taking the diastolic pressure. The chief objections to this apparatus are its cost, difficulty of repair, and the necessity of occasionally comparing it with a mercury manometer, in order to determine its accuracy, since the mercury column is replaced by a spring.

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DETERMINATION OF TUBERCLE BACILLI IN SPUTUM AFTER METHOD OF PFEIFFER AND KITASATO

To the Editor:—1. Please describe the method of examination of sputum and determination of the type of mixed infection according to Pfeiffer and Kitasato. 2. Also tell me where in this country Spengler's P. T. and P. T. O. tuberculins can be obtained.

OSCAR H. BENKER, M.D., St. Louis.

ANSWER:—1. The method of examination of sputum according to Pfeiffer and Kitasato consists in collecting the sputum in a clean sterile vessel, and then washing a portion of the tenacious mucus through several tubes or plates containing sterile water, with a view to removing bacteria which may adhere to the surface of the mucus. By such successive washings through a sterile medium the mucus is largely freed from contaminating organisms obtained from the mouth, teeth, etc., and the organisms from the throat, trachea, and bronchial tubes are chiefly left in the mucus, which is then spread on media, or preferably plated in the ordinary way and the bacteria isolated. 2. We are unable to learn that Spengler's tuberculins have been put on the market in this country.

TREATMENT OF KELOIDS

To the Editor:—A patient of mine has a small but very unsightly keloid on his neck under the chin, which originated from a small cut while shaving. What is the best way to remove it?

H. L. Hamilton, Money, Miss.

Answer.—The only satisfactory way to treat a keloid is by exposure to *x*-ray. Excision is not successful because it is followed by larger growth than before and all other destructive measures meet the same difficulty. Treatment by thiosinamin has been recommended. Injections of this drug along with massage will cause temporary improvement, but the condition returns on the cessation of the treatment. By exposure to *x*-rays just short of producing a moderate reaction, or by the production of a moderate *x*-ray reaction, great shrinking can generally be produced in a keloid. Usually by treatment in this way it can be converted into a smooth flat scar.

FORMULA OF HARRINGTON'S SOLUTION

To the Editor:—Please give the formula of Harrington's solution.

Subscriber.

Answer.—Harrington's solution consists of commercial alcohol (94 per cent.), 640 c.c.; hydrochloric acid, 60 c.c.; water, 300 c.c.; corrosive sublimate, 0.8 gm. It is intended for hand disinfection. The hands and arms should first be thoroughly washed with sterile soap and hot water and then bathed in the solution for half a minute or longer.

The Public Service

Navy Changes

Changes in the Medical Corps, U. S. Navy, for the week ended May 8, 1909:

Murphy, J. A., surgeon, detached from the Naval Medical School Hospital, Washington, D. C., and ordered to the *Olympia*.

Hart, S. D., appointed acting asst.-surgeon, from April 27.

Army Changes

Memorandum of changes of stations and duties of medical officers for the week ended May 8, 1909:

Quinton, W. W., capt., Rockhill, E. P., capt., having been found physically disqualified for the duties of a major in the Medical Corps, are placed on the retired list as majors, to date from Feb. 26.

Bourke, James, capt., granted leave of absence for 3 months, 19 days.

Humphreys, H. G., capt., relieved from duty at Fort Terry, N. Y., and ordered to Fort Wadsworth, N. Y., for duty.

Appel, D. M., colonel, granted an extension of 1 month to his leave of absence.

Stephenson, Wm., lieut.-col., granted leave of absence for four months.

Marrow, C. E., major, granted an extension of 1 month to his leave of absence.

Page, Henry, major, granted leave of absence from June 10 to about July 21.

Kirkpatrick, T. J., major, granted leave of absence for 21 days, about June 7.

Grubbs, R. B., capt., left Fort McIntosh, Texas, on leave of absence for 10 days.

Loving, R. C., capt., left West Point, N. Y., on leave of absence for 10 days.

Persons, E. E., Bispham, W. N., majors, promoted to be majors in the Medical Corps, with rank from Jan. 1, 1909.

Farr., Chas. W., capt., granted an extension of two months to his sick leave of absence.

Wertenbaker, C. L., 1st lieut., M. R. C., ordered from Fort Wadsworth, N. Y., to Fort Terry, N. Y., for temporary duty.

Bowman, M. H., 1st lieut., M. R. C., ordered to duty with troops on the transport *Sheridan* to Manila, P. I., and return to San Francisco.

Brown, I. C., 1st lieut., M. R. C., relieved from duty in the Philippines Division in time to sail from Manila for San Francisco, Sept. 15, 1909.

Hammond, W. H., D. S., granted leave of absence for 2 months, 19 days.

Hussey, S. W., D. S., relieved from duty in the Department of the Lakes, and ordered to his home, South Berkeley, Cal., for annulment of contract.

Gunckel, G. I., D. S., left Fort Caswell, N. C., and arrived at Fort McPherson, Ga., for duty.

Voorhies, H. G., D. S., left Fort Yellowstone, Wyo., and arrived at Fort William Henry Harrison, Mont., for duty.

Zirker, D. W., C. S., assigned to duty at Fort Baker, Cal.

Knapp, E. V., C. S., assigned to duty at Fort Miley, Cal.

Dosher, J. A., C. S., contract annulled May 3, 1909, services being no longer required.

Health Reports

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended May 7, 1909:

SMALLPOX—UNITED STATES

California: Oakland, April 12-19, 2 cases; Sacramento, April 17-24, 1 case.

Georgia: Macon, April 18-25, 5 cases.

Illinois: Danville, April 18-25, 12 cases.

Indiana: South Bend, April 18-25, 1 case.

Kansas: Kansas City, April 17-24, 3 cases; Wichita, 1 case.

Kentucky: Covington, April 17-24, 1 case; Lexington, 1 case; Newport, 1 case.

Louisiana: New Orleans, April 18-24, 5 cases.

Maryland: House of Correction, Bridewell, March 18-April 27, 10 cases.

Michigan: Grand Rapids, April 18-24, 1 case; Saginaw, 1 case.

Minnesota: *Duluth, April 15-22, 1 case*; Minneapolis, April 10-24, 5 cases; St. Paul, Feb. 1-March 31, 68 cases.

Missouri: Kirksville, Jan. 1-April 17, 1 case; St. Louis, April 17-24, 1 case.

Montana: Butte, April 13-20, 2 cases.

Nebraska: Polk, March 20-April 26, 14 cases.

New Jersey: Camden, April 17-24, 3 cases.

New York: Little Falls, April 10-24, 2 cases.

North Carolina: Nineteen counties, Feb. 1-28, 20 cases.

Ohio: Cincinnati, April 16-24, 10 cases; Columbus, April 17-24, 2 cases; Conneaut, March and April, 2 cases.

South Carolina: Yorkville and vicinity, April 26, 8 cases; Nashville, 1 case.

Texas: San Antonio, April 17-24, 1 case.

Utah: Salt Lake City, March 1-31, 62 cases.

Virginia: Botetourt County, April 28, 100 cases; Portsmouth, April 20-27, 1 case.

Washington: Spokane, April 10-17, 3 cases; Tacoma, March 7-April 4, 9 cases.

Wisconsin: La Crosse, April 17-24, 1 case; Milwaukee, April 17-24, 9 cases.

SMALLPOX—INSULAR

Philippine Islands: Manila, March 6-13, 8 cases, 3 deaths.

SMALLPOX—FOREIGN

Algeria: Algiers, March 1-31, 17 deaths.

Austria: Trieste, March 20-27, 1 case.

Brazil: Rio de Janeiro, March 14-28, 42 cases, 16 deaths; Sao Paulo, March 1-14, 2 deaths.

Canada: Halifax, April 10-17, 1 case.

China: Amoy, April 13-20, present; Hongkong, March 6-20, 5 cases, 4 deaths.

Egypt: Cairo, March 18-25, 16 cases, 11 deaths.

Great Britain: Bristol, March 27-April 10, 7 cases, 1 death; Cardiff, March 3-10, 1 case.

India: Bombay, March 23-31, 31 cases; Calcutta, March 13-20, 305 cases; Rangoon, 9 cases.

Mexico: Guadalajara, April 8-15, 4 deaths; Monterey, April 11-18, 7 deaths; Veracruz, April 11-18, 1 case.

Russia: Odessa, March 27-April 3, 6 cases; St. Petersburg, March 20-27, 11 cases, 6 deaths; Warsaw, Jan. 30-Feb. 6, 2 deaths.

Spain: Barcelona, March 5-12, 3 deaths; Huelva, March 1-31, 2 deaths; Valencia, April 2-9, 5 cases.

Turkey: Constantinople, March 28-April 11, 1 death.

YELLOW FEVER

Barbados: April 10-17, 1 case, 1 death.

Brazil: Manaos, March 13-April 3, 5 deaths; Para, April 3-10, 3 cases, 3 deaths.

Mexico: Merida, Feb. 27-March 6, 1 case; Ticul, April 1-24, 2 cases, 1 death.

CHOLERA—INSULAR

Philippine Islands—Provinces, March 6-13, 262 cases, 113 deaths.

CHOLERA—FOREIGN

India: Bombay, March 23-30, 1 death; Calcutta, March 13-20, 101 deaths; Rangoon, 3 deaths.

Russia: General, March 6-20, 76 cases, 27 deaths.

PLAGUE

Brazil: Rio de Janeiro, March 14-28, 2 cases.

Chile: [illegible] 11 cases; Iquique, 17 cases.

China: [illegible], 35 cases, 30 deaths; Hongkong, March 16 [illegible]

India: Bombay, March 23-30, 450 deaths; Calcutta, March 13-20, 77 deaths; Madras, March 20-26, 1 death; Rangoon, March 13-20, 16 deaths.

Japan: Formosa, March 27, present; Kobe, March 20-27, 1 case, 1 death.

Peru: General, March 27-April 10, 76 cases, 34 deaths; Callao, March 29-April 10, 5 cases, 1 death.

Public Health and Marine-Hospital Service

List of changes of stations and duties of commissioned and other officers of the Public Health and Marine-Hospital Service for the seven days ended May 5, 1909:

Kerr, J. W., asst. surgeon-general, directed to proceed to Cincinnati, O., on special temporary duty.

Irwin, Fairfax, surgeon, relieved from duty on the Revenue Cutter *Rush*, and directed to report to the commanding officer of the Revenue Cutter *Thetis*.

Stimpson, W. G., surgeon, granted 5 days' leave of absence from May 3, 1909.

Stimpson, W. G., surgeon, relieved from duty at Port Townsend, Wash., and directed to report to the commanding officer of the Revenue Cutter *Manning*.

Lavinder, C. H., P. A. surgeon, directed to proceed to Columbia, S. C., and vicinity on special temporary duty, May 3, 1909.

Ramus, Carl, P. A. surgeon, granted 1 day's leave of absence, April 29, 1909, on account of sickness.

Moore, Dunlop, P. A. surgeon, granted 1 month's leave of absence from May 3, 1909, on account of sickness, and 3 months' leave of absence from June 3, 1909, with permission to go beyond the sea.

Fox, Carroll, P. A. surgeon, relieved from duty at San Francisco, and directed to report to the commanding officer of the Revenue Cutter *Bear*.

Amesse, J. W., P. A. surgeon, directed to proceed to Caibarien, Cuba, on special temporary duty.

Stimson, A. M., P. A. surgeon, granted 2 days' leave of absence, May 1 and 3, 1909.

Simpson, F., asst.-surgeon, relieved from duty at Fort Stanton, N. M., and directed to report to the commanding officer of the Revenue Cutter *Perry*.

Lanza, A. J., asst.-surgeon, relieved from duty on the Revenue Cutter *McCulloch* and directed to report to the commanding officer of the Revenue Cutter *Rush*.

Bowers, Paul E., acting asst.-surgeon, granted 1 day's leave of absence in April, 1909, under paragraph 210, Service Regulations.

Delgado, J. M., acting asst.-surgeon, granted 9 days' extension of annual leave from April 15, 1909, on account of sickness.

Gregory, George A., acting asst.-surgeon, granted 7 days' leave of absence from May 4, 1909.

MacCaffry, W. B., acting asst.-surgeon, granted 2 days' leave of absence in April, 1909, under paragraph 210, Service Regulations.

Rea, Robert H., acting asst.-surgeon, granted 3 days' leave of absence from May 6, 1909.

Rea, Robert H., acting asst.-surgeon, granted 1 day's leave of absence, April 26, 1909.

Rush, John O., acting asst.-surgeon, granted 3 days' leave of absence from April 20, 1909, under paragraph 210, Service Regulations.

Wakefield, H. C., acting asst.-surgeon, granted 4 days' leave of absence from April 28, 1909, under paragraph 210, Service Regulations.

BOARDS CONVENED

Board of medical officers convened to meet at the Marine Hospital, Baltimore, May 1, 1909, for the purpose of conducting a physical examination of eight cadets of the U. S. Revenue-Cutter Service for commissions as third lieutenants. Detail for the board: Surgeon W. P. McIntosh, chairman; P. A. Surgeon M. K. Gwyn, recorder.

Board of medical officers convened to meet at the Maine General Hospital, Portland, Me., May 3, 1909, for the purpose of conducting a physical examination of a captain of engineers of the U. S. Revenue-Cutter Service. Detail for the board: Surgeon P. C. Kalloch, chairman; Acting Asst.-Surgeon A. F. Stuart, recorder.

Board of medical officers convened to meet at the Bureau, May 4, 1909, for the purpose of conducting a physical reexamination of an applicant for the position of cadet in the Revenue-Cutter Service. Detail for the board: Assistant Surgeon-General W. J. Pettus, chairman; P. A. Surgeon J. W. Trask, recorder.

Board of medical officers convened to meet at the Marine Hospital office, Philadelphia, May 4, 1909, for the purpose of conducting a physical reexamination of an applicant for the position of cadet in the Revenue-Cutter Service. Detail for the board: Surgeon J. M. Gassaway, chairman; Acting Asst.-Surgeon H. Hornung, recorder.

Medical Economics

THIS DEPARTMENT EMBODIES THE SUBJECTS OF ORGANIZATION, POSTGRADUATE WORK, CONTRACT PRACTICE, INSURANCE FEES, LEGISLATION, ETC.

The Pioneer Press Helps to Suppress Quacks

In the *St. Paul Medical Journal*, May, appears an editorial announcement stating that the *St. Paul Pioneer Press* has discontinued carrying offensive medical advertisements, especially those of the Heidelberg Medical Institute and of "Dr. Charles," who, according to the *Journal*, have been notified that with the expiration of their present contracts, they can no longer advertise in the *Pioneer Press*. This step is taken at considerable financial sacrifice.

The *Journal* appeals to the profession and to the public to support the *Pioneer Press* in the effort which it is making to publish a clean newspaper, saying truly that the only way in which quacks and charlatans can flourish is through newspaper advertising, and that with these channels of publicity barred they must either move or go out of business. "The medical profession has been practically helpless in spite of all laws to accomplish anything against this form of quackery, but now that the newsapers have taken the matter up, the rest will be easy. The *St. Paul Dispatch* has also announced that it will clean up its columns, but whether or not it will go so far as the *Pioneer Press* we are unable to say. We hope it will."

In view of the fact that one of the most pernicious and long-lived "medical institutes" in the west came from St. Paul originally and resumed business in that city after having been driven out of a neighboring state, the campaign against dishonest medical advertising in St. Paul is of particular interest. Surely, the Ramsey County Medical Society, one of the strongest and most influential county organizations in the west, can furnish the editors and proprietors of the local press with enough evidence and can wield enough influence to bar these objectionable advertisements from the local newspapers. As soon as the charlatan is compelled to cease advertising, he ceases to do a profitable business. We wish that the good example of the *Pioneer Press* might be followed by newspapers throughout the country.

Dr. McCormack in Kansas

The last two weeks of April were devoted by Dr. J. N. McCormack to a series of meetings in Kansas, comprising fourteen public meetings, two being held in each Councilor District as follows: April 14, Atchison; April 15, Hiawatha; April 16, Manhattan; April 17, Abilene; April 19, Norton; April 20, Beloit; April 22, Larned; April 23, Garden City; April 24, Newton; April 25, Wellington; April 27, Independence; April 28, Pittsburg; April 29, Leavenworth; April 30, Lawrence. The press of the state has been unanimous and outspoken in commendation of the meetings and of the efforts made for public instruction.

The Larned *Chronoscope* says: "The lecture given by Dr. McCormack at the Woodman Hall last Thursday night probably gave more enjoyment and genuine instruction than any that has ever been delivered in Larned. The large audience present listened with the closest attention for nearly two hours while Dr. McCormack expounded truths with almost startling vigor and clearness."

The Sumner County Star, commenting editorially on the Wellington meeting, says: "Those who attended the lecture in the Auditorium by Dr. McCormack last night heard . . . one whose teaching if carefully followed would result in inconceivable help the world over. . . . He struck fearlessly at the evils and shortcomings of society that are responsible for a large part of disease, ever keeping his audience in mind that it was not so much that he wished to criticize as to correct the existing conditions. . . . Dr. McCormack showed that while the government is spending three out of every four dollars of revenue on the Army and Navy and pensions, for the slaughter of humanity, it spends not one cent for the preservation of human life and the prevention of disease. The people should not forget his splendid advice and should assist in every way possible to bring about the needed reform."

The Pittsburg *Daily Headlight* says: "With the medical association, the ministerial association and the city Federation of Women's Clubs joining in the lead, the citizens of Pittsburg are called on to conduct a new crusade, a war on disease. Last night at a meeting of citizens which crowded the First Christian Church to the doors, the crusade was begun. . . . As a result of the meeting last night, public sentiment is to be aroused to the danger of allowing disease to have full sway and steps will be taken to conduct a warfare, systematic and well organized."

The Independence *Daily Reporter* says editorially: "The address of Dr. McCormack at the Prebyterian Church on health and prevention of disease was a discourse every grown person in the city should have heard. . . . The lecture was of vital importance to the public."

Dr. W. H. Cook, secretary of the Mitchell County Medical Society, writes regarding the Beloit meeting: "In spite of a rainy night, the opera house was crowded so that many stood during the entire two hours that Dr. McCormack was speaking. . . . The physicians of the county feel well repaid for the time we spent in getting an audience for Dr. McCormack and to my mind, great good will come to the people of Beloit on account of his visit."

POSTGRADUATE COURSE FOR COUNTY SOCIETIES

DR. JOHN H. BLACKBURN, DIRECTOR
BOWLING GREEN, KENTUCKY

[The Director will be glad to furnish further information and literature to any county society desiring to take up the course.]

Tenth Month—Third Weekly Meeting

METHODS OF EXAMINATION

PHYSICAL EXAMINATION.—Light, reflection: instruments, specula. Retraction of auricle. Normal tympanic membrane;

diseased membrane. Inflation of middle ear; Valsalva method, technic of Politzerization. Catheterization of Eustachian tube.

FUNCTION OF EAR.—Watch test, voice test, tuning-fork tests.

EFFECTS OF NASOPHARYNGEAL AND NASAL AFFECTIONS ON THE EAR

Adenoids; symptoms, diagnosis. Faucial tonsils. Nasal obstructions and inflammations.

MIDDLE EAR

ACUTE MYRINGITIS.—Etiology, symptoms, diagnosis.

CHRONIC MYRINGITIS.—Symptoms, treatment.

INJURIES OF DRUM MEMBRANE.—Character, pathology, treatment.

ACUTE TUBOTYMPANIC CATARRH.—Causes, symptoms, prognosis, treatment.

ACUTE CATARRHAL OTITIS MEDIA.—Etiology, prognosis, treatment.

ACUTE SUPPURATIVE OTITIS MEDIA.—Etiology, symptoms, diagnosis, treatment. Incision of membrane, not "puncture." Local treatment, irrigation, etc., for pain.

CHRONIC PURULENT OTITIS MEDIA.—Symptoms, prognosis, treatment, medicinal and surgical.

Medical Education and State Boards of Registration

COMING EXAMINATIONS

DELAWARE: Dover and Wilmington, June 15-17. Sec., Dr. Henry W. Briggs, Wilmington.

FLORIDA ECLECTIC: De Funiak Springs, June 10. Sec., Dr. Hiram J. Hampton, Tampa.

FLORIDA: Tallahassee, May 19-20. Sec., Dr. J. D. Fernandez, Jacksonville.

ILLINOIS: Coliseum Annex, Chicago, June 16-18. Sec., Dr. J. A. Egan, Springfield.

IOWA: Des Moines, June 1-3 and June 22-24; Iowa City, June 8-10. Sec., Dr. Louis A. Thomas, Des Moines.

KANSAS: Kansas City, June 10. Sec., Dr. R. A. Light, Chanute.

MARYLAND: Baltimore, June 15-18. Sec., Dr. J. M. Scott, Hagerstown.

MICHIGAN: Ann Arbor, June 8. Sec., Dr. B. D. Harison, 504 Washington Arcade, Detroit.

MINNESOTA: Minneapolis, June 15. Sec., Dr. W. S. Fullerton, St. Paul.

MISSOURI: Kansas City, May 17-19. Sec., Dr. J. A. B. Adcock, Warrensburg.

NEBRASKA: State Capitol, Lincoln, May 25-27. Secretary, Dr. E. J. C. Sward, Oakland.

NEW HAMPSHIRE: Concord, June 29-30. Regent, Mr. H. C. Morrison.

NEW JERSEY: State House, Trenton, June 15-16. Sec., Dr. J. W. Bennett, Long Branch.

NEW YORK: Albany, May 18-21 and June 22-25. Chief of Examinations Division, Mr. Charles F. Wheelock, Albany.

NORTH CAROLINA: Asheville, June 9. Sec., Dr. B. K. Hays, Oxford.

OHIO: Columbus, June 8-10. Sec., Dr. George H. Matson, State House, Columbus.

PENNSYLVANIA: Philadelphia and Pittsburg, June 22-25. Sec., Mr. Nathan C. Schaeffer, Harrisburg.

SOUTH CAROLINA: Columbia, June 8-10. Sec., Dr. H. H. Wyman, Aiken.

TEXAS: Cleburne, June 22-24. Sec., Dr. M. E. Daniel, Honey Grove.

VIRGINIA: Richmond, June 22-25. Sec., Dr. R. S. Martin, Stuart.

WYOMING: Laramie, June 23-25. Sec., Dr. S. B. Miller.

Homeopathy at the University of Minnesota

For twenty years there has been a separate homeopathic department at the University of Minnesota teaching all the medical courses of the junior and senior years. Thus at great expense a separate department was maintained and the teaching of many courses unnecessarily duplicated. All the work of the first two years has long been taught by one department. Since the attendance had gradually dwindled until only three students remained, the Board of Regents on May 6, abolished the homeopathic department, feeling that, however worthy the cause, they were not justified in so great an expendi[illegible] Provision was made for two elective chairs in homeopathic materia medica and in homeopathic therapeutics. It was also provided that students electing such work should be granted diplomas specifying that they were in homeopathic medicine.

University of Minnesota Appropriations

The Minnesota legislature at its last session appropriated $440,000 for new buildings at the University of Minnesota. Of this sum $200,000 was for a new anatomical building, $200,000 was for a second medical laboratory building, and $40,000 was for an addition to the Elliott Hospital bequest of $115,000, thus making a total of $155,000 for the hospital building. The sum of $350,000 was also appropriated for the enlargement of the campus, $500,000 having already been expended during the last two years. With these appropriations there is now a sum of over $1,000,000 available for the erection of new buildings on the university campus within the next two years.

Two-Part Examinations for License

Dr. E. J. C. Sward, secretary of the State Board of Health of Nebraska, states that hereafter at all examinations, those who have completed the first two years of the medical course in any unrecognized medical college will be allowed to take examinations in the branches completed, the credits thus obtained to be accepted toward the examination for license after graduation. There are now seven states which have made this provision, the others being Colorado, Iowa, Maryland, Michigan, New York and Virginia.

Minnesota License Examinations

The following notice was received from Dr. W. S. Fullerton, secretary of the Minnesota State Board of Medical Examiners:

"The Minnesota State Board of Medical Examiners, at its regular April, 1909, meeting, adopted the following: 'All applicants for license will be required to take a practical examination in laboratory work in pathology, histology, bacteriology and urinalysis and in clinical diagnosis, and in such other branches as from time to time may be deemed advisable. Reciprocates, when coming from boards which do not require this examination, must take it before this board as a supplementary.

"'This rule goes into effect at once and will be enforced at the June, 1909, examination and subsequently.

"'All applications must be on file with the secretary on or before the first of January, April, June and October for the examinations of those respective months.

"'The next examination will be held at the State University, Minneapolis, beginning at 9 o'clock a. m., Tuesday, June 15. The practical examination begins at 9 o'clock a. m., Thursday, June 17.'"

National Meeting of Examining Boards

The National Confederation of State Medical Examining and Licensing Boards will hold its nineteenth annual meeting at Atlantic City, N. J., Monday, June 7, 1909, in the Park Avenue hall of the Hotel Marlborough. The subjects to be taken up at this meeting relate to the standing of medical colleges, and practical, oral and divided examinations before state medical examining boards. These topics at this time are urgent, practical and vital to the maintenance and development of the influence and efficiency demanded of state boards, both by the profession and by the state. Among the highest contributors of papers to this meeting are men of the highest standing in the medical profession, and their production will undoubtedly be of great value. An earnest and cordial invitation is extended by that body to all members of state medical examining boards, and all others who are interested in this work. The officers of the confederation are: A. Ravogli, M.D., acting president, 5 Garfield place, Cincinnati; Murray Galt Motter, M.D., secretary, 1841 Summit place, Washington, D. C.

COUNCIL ON MEDICAL EDUCATION OF THE AMERICAN MEDICAL ASSOCIATION

Fifth Annual Conference, held at the Auditorium Hotel, Chicago, April 5 1909

(Continued from page 1521)

Character of the State License Examination

Dr. Fleming Carrow, Detroit, read the following paper:

The character of the state license examination must, of necessity, depend on, and in its scope and limitation, be regulated and controlled by, the teachings in the medical schools. When you advance the standard of your schools, our scope is broadened; if you narrow your instruction and shorten your medical course, the licensing board must necessarily conform to your teachings or refuse to examine your graduates.

The state board is not an educational institution, any more than it is a detective agency, for the apprehension of unlicensed and illegal practitioners of medicine. It is a body created by statute, operating within the state which called it into existence, and is in its character judicial, executive and advisory. Its scope and its function, therefore, can no more be governed by the ideas of individual educators than can the business of the interstate commerce commission be administered by the congress which created it.

It follows, therefore, that the function of the state licensing board must be advisory: to tell the educator what the law requires and it is the part of the educator to see that his school fulfils those requirements.

PRELIMINARY EDUCATION

If the law requires that a student beginning the study of medicine shall have had a standard high school education preparatory to that study, the board can not consistently admit to its examinations a graduate who has had less than that requirement. Less than that requirement may, in the opinion of the educator, be enough, but it does not fulfil the law governing such cases. The position I take, therefore, that the board is advisory as well as judicial and executive in character, seems to be a logical one.

The character of the state license examination: Is it good, sufficient and comprehensive? Or is it bad, inefficient and narrow? These questions all hark back to the academic one, is your medical education good? This, in turn, leads us to inquire, what of the preparatory school?

It seems to me that the senior year in the preparatory school should embrace more than the sciences. History should have a larger place in the mental preparation of the prospective medical student. The knowledge of at least the equivalent of "McLaughlin's History" should be insisted on; not alone because it is history, but because it is an eminently good training for medical study. There should be more to preparatory work than 60 counts. An elective course of study, best suited as the foundation of professional work, is of prime importance. Much more time might, with advantage, be given to the literature of at least two modern languages, some of which might be taken from physics.

MEDICAL TRAINING

As to the strictly medical training; if a man has been properly prepared in a preparatory school, four years is ample, if the medical college is a good one; if the instructors are trained teachers; if they are salaried men and can afford to give all the time necessary to teaching and do not have to shorten the lecture hour by the necessity of making a call, for a fee.

The man who comes before his class with a last year's lecture must not be surprised if his student fails when he reaches the state examining board, so, as I said, the character of the state examination depends on the character and fitness of the medical teacher.

If you think the state board is easy, may it not be because the educator has failed in his duty? One of my examinations in anatomy was pronounced too hard by one of the instructors at the University of Michigan, yet every student passed it, simply because the teacher who was then there was almost without a peer in this country. I knew that his students could pass any examination you could give them in anatomy.

The art of imparting knowledge is not possessed by every man who writes "Professor" before his name. The really good surgeon is not always he who can make the most graceful curves in the air with a scalpel, but rather the one who, without the flourish of the studied gesture, makes his incision just where it should be.

The state examination will be comparatively simple if your school is proportionately thorough; and here the question should be considered. How shall the examination be conducted? Should it be written or oral? Should it be a laboratory or a clinical examination? Abroad, all four of these methods are in use The written examination is, of all others, the poorest, yet it has the widest use. There are many men for whom it is easy to write a learned discourse (?) on any subject embraced in a medical course, and yet they may be totally unqualified for the practical side of medicine. It is a matter of common observation to see a man coming from a poor school, where there is but little teaching in laboratory and clinical work, stand high in a written examination.

His course has been largely a "cramming course" from quiz compends, his written examination is quite in line with his habits of study and he passes well.

EXAMINERS TOO POORLY RECOMPENSED

As to the oral examination, the time which the average board member can give to such work, is not sufficient. Feeling that he is not recompensed by the state for his services, the first question he asks on arriving at the place of examination is, "When can I get a train home?" The remedy for this is to have a board, the members of which are not so actively engaged in practice that they can not give all the time necessary for the performance of this most important duty. The examiner should therefore be paid by the state.

The two remaining forms of test examination—in laboratory and clinical work, can not be conducted by the average state board man, because of his lack of knowledge of laboratory and clinical methods and technic. This again, could be remedied by the selection of laboratory and clinical men not connected with medical schools for the state board, these men to be under state commission and paid by the state.

THE IDEAL EXAMINATION

The ideal test examination would embrace all four of these methods, and it remains for this Council to suggest to the state board a plan whereby some such scheme may be made possible The tests used to-day are inefficient and unsatisfactory, and it is to be hoped that in the near future, some remedy will be devised which will enable us to satisfy ourselves as to an applicant's fitness to practice medicine.

You, gentlemen, are absorbed in telling us how a man should be educated. We listen attentively and give weight to your advice. Does it not seem anomalous and out of the regular order, to expect the state examiner to do anything less than pass your student? Have you not prepared him for this very event, and has he not the right to pass successfully if you have taught him efficiently? It seems so to me. If you are building the machinery of a medical education properly it should not "slip a cog" when you pass the throttle to our hands.

The real fact is, and here lies the trouble, there are too many medical schools; and where there are so many, some are bound to be poor.

Again, teachers of medicine are not always selected for their fitness. In proprietary schools, some teach because they own stock. In the universities many other things enter into the securing of instructors besides their ability and preparedness to impart the knowledge they may have.

As an improvement along these lines I would suggest a general matriculation law for all schools; the state board to examine all who wish to matriculate in the medical colleges. Allowing students to enter on medical study with conditions in their preparatory work should be discontinued, as such a man is handicapped in his entire medical course.

In Michigan the board of registration in medicine is the supreme medical authority in the state—and if we are logical it should be given the oversight of the prospective medical student as well as of his fitnes to engage in practice after he has finished his course in the medical college. With us this plan is in force, and it is as nearly perfect as can be. The manner of conducting the examinations becomes a secondary matter, therefore, if all medical colleges in the state have the same curriculum and prepare their students thoroughly.

Gentlemen, in conclusion, let me say that it is not entirely by the recommendation of higher standards of medical education that great things are to be accomplished now-a-days. There should also be more stringent laws enacted giving greater power to the examining boards in order that schools which are not efficiently equipped to properly teach medicine can be closed and thereby prevented from graduating students solely by the cramming process.

DISCUSSION

Dr. William T. Councilman, Boston: The State Board of Medical Examiners have two distinct duties under their office. They serve in the first place to protect the public from the admission of men unfit to practice medicine. Medicine to-day calls for a different training and a somewhat different order of men from those who have served it in the past. The medical man of to-day must be trained in the methods of science because it is by the application of methods that the conditions of disease are investigated.

In the second place the examination must protect the medical profession, not in the narrow way of restricting the entrance into the medical profession as a trade union would, but by eliminating the unfit from entrance into the profession. If unfit men enter the medical profession it will gradually lose that respect and confidence of the public which it must have in order to attain its highest excellence and usefulness.

HOW EXCLUDE UNFIT MEN?

The demand for medical examining boards has come from the medical profession. Although the medical schools encouraged the movement, it came directly from the medical profession and not from the public, and to the medical profession, as I have said, the state boards have a definite duty. How shall the state examining boards exclude the unfit men? We believe that for the study of medicine a certain preliminary training is essential. This training consists chiefly in the study of the sciences, for on the ground work of science medical education depends. The state boards are within their rights in demanding that before entering on his medical education the medical student shall have had such a training. It is further true that they can exercise a certain amount of supervision over the medical schools of the state, but that, I think, is extraordinarily difficult. How can a state board of examiners know whether the methods of instruction which are adopted in any particular school are the best methods? Medical education is at the present time in such a condition of uncertainty that we do not know what are the best methods, and certainly the state boards can not decide. Moreover, how is the state board to decide whether the methods advertised by a medical school are on paper only or whether they are actually enforced. Those of us who have had much experience with catalogues of medical schools know that the imagination is not carefully restricted in the preparation of the catalogue. Nothing could be worse for the state of medical education in the country than a demand on the part of a state board of education that the instruction in the medical schools of the state should conform to a definite curriculum. The success of any order of studies will depend on the facilities which the school has and on the character of its teachers. If a medical school with very unusual methods of instruction turn out men of a high class, those men should pass the examining boards. Even if medical schools admit candidates who have had none of the preliminary education, which is generally regarded as essential, and if still by very careful methods of instruction they turn out a suitable product their product should be admitted into the medical profession. It seems to me that the amount of good which the state board of examiners can do by insisting on preliminary training and methods of teaching in the schools themselves is very limited.

CHARACTER OF EXAMINATION MOST IMPORTANT

The selection of men can be determined only by an examination and on the character of this examination everything depends. In the beginning and up to the present time the examination has been a written one. Certain formal questions are asked and the candidate writes out the answers. That this is the easiest and the quickest method of examination no one will deny. That it is an absolutely unsuitable method every one who has been engaged in teaching and examining students will recognize. In the first place there is a very great difficulty in the preparation of questions which will really test a candidate's knowledge. It is only possible to ask a certain number of questions on any subject. In the yearly preparation of examinations certain questions will recur in spite of the examiner. It is hardly possible to ask more than one hundred questions on any subject. These examinations in the beginning undoubtedly stimulated the schools but the poor schools quickly rose to the emergency and their instruction was based not on rendering a student fit for the high duties of the profession but on making him capable of passing the examination. The matter of examination passing has been rendered very much more facile by the preparation of quiz compends in which the questions of state boards are analyzed and suitable answers given. Any man of proper intelligence by the use of such a quiz compend can prepare himself in the course of a few months for such an examination without any real medical training at all.

The examination for admission to the practice of medicine should not be a written examination, to show what the candidate remembers and can write, but a practical examination to show what he really knows and can do. The real efficiency of a medical man depends largely on his knowledge of methods of diagnosis and treatment and his facility in the use of these methods, and that a candidate has this knowledge and ability can only be tested by the actual demonstration. This, I think, will be admitted on all sides.

PROVISION FOR PRACTICAL EXAMINATIONS

The objections which are urged against such methods of examination are numerous. In the first place it is said that the examiners themselves at present are incapable of conducting such examinations. If this be true, and I hardly believe it, they should give up their offices to those who are capable of conducting such examinations. In accepting the position they have assumed certain duties, and if not capable of fulfilling them they should not occupy the positions. It is also said that the state boards have not the facilities for conducting such examinations. This is not true. I feel perfectly sure that every assistance will be given to the state examining boards by the medical schools in the state. They will offer their laboratories and all their facilities. The examination should not be held in places were facilities of this sort can not be provided. The laboratory side of the practical examinations is the least. The practical examination should embrace the clinical as well as the laboratory side of medicine. There is no difficulty whatever in providing material for the clinical examination. In every city where the examination would be held there is enough ambulant dispensary material to provide for the examination. Even the facilities of a hospital would be extended to the state boards if they asked for them and used them properly. By this clinical examination the student should show that he is thoroughly trained in the methods of diagnosis by auscultation and percussion, and in all of the clinical methods; that he understands the principles of antiseptic surgery and can apply them; that he knows his regional anatomy and can apply his knowledge in the diagnosis of internal conditions. Another objection which is raised is that such an examination to be effective will occupy more time than the written examination. Undoubtedly this is true and more time must be given to the examinations. If the emoluments of the office do not justify this expenditure of time on the part of the examiner the emoluments should be increased. The state could easily meet the increased expense by exacting a higher fee for the examination. There is no reason why the fee should not be at least $100. The cry of the poor boy will be at once raised, but if the poor boy has the proper material in him he can easily get together the money. He has gotten together much more for his medical education. It is not justifiable to make a whole system of examinations ineffective by the lack of funds.

PRACTICAL EXAMINATIONS COMMON ELSEWHERE

We as a medical profession and as a part of the public should insist on this practical examination. The best medical schools would welcome it, because they do not fear the application of any suitable test to determine the fitness of their method. It will be opposed by certain of the schools who are training men to pass examinations as at present conducted. It seems rather absurd that we should say that the practical examination can not be held here when it is held in every country in Europe and in Canada. I can not avoid speaking strongly on the matter because it is one to which I have given a great deal of thought. It seems to me that the state boards have the matter of medical education entirely in their own hands. They can demand that the medical schools shall turn out a fit product. The state examiners hold the most important medical positions in the state. They have a greater responsibility than that of a teacher in a medical school, and greater than the state health officials. I firmly believe that they will rise to this responsibility and show that this country must not stand behind other countries in the selection of the men who are fit to enter the ranks of the profession. The practical examination will also do away with the difficulties arising from the different schools of medicine. If a man shows that he has knowledge of methods and facility in the application of these methods in the recognition and in the treatment of disease he can be trusted no matter under what medical sect he chooses to array himself.

SOME RESULTS OF HIGHER STANDARDS OF PRELIMINARY EDUCATION.

BY R. H. WHITEHEAD, UNIVERSITY OF VIRGINIA.

The revolution in medical education which has been going on in the past ten or fifteen years is characterized by four prominent features: 1. Better preparation of students before admission to the schools. 2. Thorough training in the fundamental medical sciences by laboratory methods as a means to such a good understanding of the subjects studied that the student shall be able to keep abreast of advances in medical science in after years. 3. Better training in the clinical branches by methods which permit and enforce personal study of disease and its management in living people. 4. The employment of trained teachers to whom teaching and investigation are primary, not secondary, considerations.

The first of these is the most important, since it is fundamental to the others; without suitable preparation of the student, other measures are for the most part ineffectual. Accordingly, while I have in mind in a general way all the features of the newer standards, this paper is concerned chiefly with the item of preliminary education.

As the result of conjoint action of various bodies, there are two standards of preliminary education now before us: The first demands the completion of a four-year high school course, or an equivalent amount of education. While it is the present standard of the majority, perhaps, of our medical schools, it is recognized that it is far from satisfactory, and that it is merely a temporary halting place. The other requires, in addition to the high school course, a year's work in college chemistry, physics, biology and a language, preferably German. As a matter of fact, it means, in most cases, two years of college work, as our college curricula are now constructed. In 1910 this or a higher requirement will be in force in almost all of our university medical departments.

As I am connected with a school which for the past two years has been requiring for admission the completion of a year of college work in chemistry, physics and biology, your secretary has asked me to present a statement of our experience with, and some observations on, a requirement which is quite similar to the one which is to receive such wide adoption in 1910.

We may consider the subject from two standpoints: pathologic and economical. Pedagogically speaking, the requirement has been beneficial in various ways: The great maturity and more earnest spirit of the students are, of course, decided gains; and the technical knowledge and training in the fundamental preparatory sciences possessed by them have enabled the instructors to improve the character and quality of their courses greatly. But the greatest, the almost inestimable value of the requirement, in my experience, is the fact that it constitutes a barrier between the medical school and the obviously unfit. The incapable student, the chronic idler, and the man to whom the study of natural science is distasteful, are kept out of the school. I should say, then, pedagogically speaking, that the greatest value of the requirement is its efficiency as a sifter, separating the chaff from the wheat.

I should like to digress at this point to say a few words as to the character of the courses in physics and biology, which, it seems to me, are desirable for the prospective medical student. The course in physics at the average college, so far as my experience goes, is either almost entirely theoretical with little laboratory work, or specialized and adapted more particularly to the needs of the engineering student. It is, in either case, a study of mathematics rather than of Nature, and it is often so difficult that students who are deficient in mathematical talent are almost certainly doomed to failure. Is it not possible to devise good college courses in physics designed to meet the needs of medical men, courses which shall be less mathematical and deductive, more experimental and inductive? And the courses in biology might be improved in my opinion by a fuller consideration of the great biological conceptions which have so profoundly influenced modern thought.

I come now to the economic side of our question. Ours is a small department of one of the smaller universities. The effect of the introduction of this requirement on attendance was to reduce the size of the entering class 50 per cent., and at the end of two years the total attendance has been reduced about 30 per cent., at which point, we hope, the reducing process will stop. Recently I have examined the statistics of 21 representative schools which have raised their entrance requirements within the past few years; in many cases the increase was only to a high school course. The average reduction in attendance in these schools at the expiration of two or three years was 42 per cent.; that is, these schools suffered a loss of nearly one half of their students as compared with the enrollment before the raise in standard. It seems perfectly clear that the wide adoption of the standard which we are discussing will produce a considerable diminution in the size of the annual increment to a badly overcrowded profession, accompanied by a great improvement in the average quality of that increment. The young medical man of the early future is going to be a much more efficient practitioner, and better able to lead and direct in matters pertaining to the public health.

In this connection we must not forget our debt of gratitude to those university presidents and trustees, who, in spite of the costliness of a modern medical school, and in spite of the general indifference of the public to the ideals of medical education, have had the courage and the wisdom to devote so much of their ability to this phase of public service.

I come next to a most important consideration: What should be the attitude of the state examining and licensing boards to this standard? For a long time one of the principal functions of these bodies has been to persuade and compel medical schools to enforce a certain minimum standard of preliminary education—and doubtless there is necessity for a continuance of this function; but the situation is now, in a way, reversed, and the question is, Can and will the boards adopt the higher standard set up by many of the schools and advocated by this Council? It is clear that the boards of some localities can not do so; local conditions would not justify and sustain them. On the other hand, some boards more fortunately situated have already adopted it; and there are various other states whose boards possess the necessary authority and whose conditions fully warrant such action. The advantages of this standard to the medical profession and to the public would still be evident, no matter what action the boards may take; but it is certain that its benefit can not be reaped fully unless a considerable number of the boards approve and support it. In all probability many medical schools will continue to maintain just as low a standard as the boards will allow.

"Every situation in life has its advantages and its disadvantages." Let us glance for a moment at one of the disadvantages of the present situation. The recent inspection of medical schools, conducted by the Council, has revealed quite a number which, even under a most liberal system of grading, can not be regarded as doing acceptable work. Many of the states are protected against the graduates of such schools by the fact that their examining boards have the authority to refuse recognition to schools which fall below their standards. But there are other states whose boards are compelled by law to examine any graduate of any medical school. Accordingly, the graduates of these discredited schools, being excluded from the majority of the states, will naturally gravitate toward to the places of least resistance; and numbers of them will get by the boards, if only written tests are relied on to stop them. There is in the present situation a distinct menace both to the profession and to the public of such states, which should be met promptly, either by holding practical examinations for license, or by securing the necessary changes in the medical acts.

Finally, a word as to medical education in the south and its relation to higher standards of preliminary education. Here, I regret to say, are located a considerable number of the schools which have been discredited by the Council; here almost none of the examining boards have the authority to discriminate between schools, and here it will be difficult to secure such authority from the legislatures; and here, through the operation of causes which are perfectly natural and well understood by all who are acquainted even superficially with the history of the country, popular education has lagged behind the progress made in many other sections, so that the proper educational basis for high standards in medicine has been developed very imperfectly as yet. There are a number of old and well-established medical schools in the south to whom the proposition to adopt the Council's standard would be equivalent to a request to commit suicide. And even if the schools were to be so obliging as to accede to the request, their places would be taken immediately by others not so good. The difficulties can not be met by the adoption of standards not justified by the local conditions; but I am confident that it would be a mistake, so far as the south is concerned, for this Council to lower the standard out of consideration for southern difficulties, or for any other reason. On the contrary, the south needs that standard as a goal to be striven for; and it must not expect other sections of the country to retard their own progress. It must, in large measure, work out its own medical salvation; not in fear and trembling, however, but with courage, patience and wisdom. That it can and will do so, I have no doubt. The revival in education—primary, secondary and collegiate—now going on in many southern states is, perhaps, imperfectly understood and appreciated in the north and west. It is a movement of great extent and power, well organized, and intelligently directed towards a definite end. Just at present the bulk of this effort is being expended on the secondary schools. The public secondary schools have been strengthened greatly, and 680 new ones have come into existence in the last three years. During the same time there are few southern colleges of any standing which have not increased their requirements by amounts varying from 25 to 150 per cent. Moreover, the material wealth of the south is increasing so rapidly that it promises soon to become a most prosperous country. The spread of the idea of local taxation guarantees in the near future a system of public schools of definite and permanent importance. So that the day is not so very far off when there will exist the proper basis for high standards in medical education. Already the leaven of high ideals is working in at least three southern universities. And so, I say, do not worry about the south; it will work out its educational development in due time. In the meanwhile the Council can be of much service by stimulating, encouraging, helping—but not by lowering its standard.

Marriages

George Roger Myers, M.D., to Miss Edna, both of Hurlock, Md., April 28.

Jesse L. Beauchamp, M.D., to Miss Clyde Brooks, both of Memphis, Tenn., April 27.

George Alley Renn, M.D., Norfolk, Va., to Miss Sarah E. T. Harris, at Norfolk, April 28.

Orlando F. Scott, M.D., Argo, Ill., to Miss Alma Elizabethe Ham of Frankfort, Ind., April 7.

Jesse T. Little, M.D., Pittsburg, Pa., to Miss Mary Carskadon, at Keyser, W. Va., April 28.

Clarence Lamar Giddens, M.D., Adel, Ga., to Miss Luelle Bray of Valdosta, Ga., April 25.

Daniel Pattee Ray, M.D., Johnstown, Pa., to Miss Mary McQouwn of Clearfield, Pa., May 5.

Francis Benedict Doyle, M.D., to Miss Josephine Harper Dillon, both of Brooklyn, N. Y., April 28.

Orville G. Brown, M.D., U. S. Army, to Miss Clara Amsden Topping, in Sheridan, Wyo., April 21.

Mary J. Dunlap, M.D., Vineland, N. J., and Clarence Snyder of Racine, Wis., at Trenton, N. J., May 1.

Edward Barney Smith, M.D., Woodleigh, N. C., to Miss Alice Saunders Thomas, at Creeds, Va., April 21.

James Hall Mason Knox, Jr., M.D., Baltimore, Md., to Miss Marian Gordon Bowdoin, at Baltimore, April 28.

Earl H. Bruns, M.D., U. S. Army, to Miss Caroline K. Howard of Stamford, Conn., at Silver City, N. M., April 17.

Deaths

Melchert H. Garten, M.D. Rush Medical College, 1871; one of the most prominent and beloved practitioners of Lincoln, Neb.; died suddenly at his home in that city from angina pectoris, and grad- May 6, aged 63. He was born in Springfield, Ind., and grad- uated from DePauw University before taking up his medical work. For twelve years after his graduation, he practiced in Dover, Ill., and then moved to Lincoln, Neb., where he soon attained a leading position as a specialist in diseases of the eye, ear, nose and throat. He was a member of the American Medical Association, and always an active and earnest member of the state and county societies. He was an ideal husband, father and friend, modest and retiring, unostentatiously liberal in his benefactions, especially in aiding struggling students to obtain an education. He had been in attendance at the annual meeting of the state medical society in Omaha, where he complained of indigestion, which proved to be angina pectoris.

Frederick Bailey Mandeville, M.D. New York Homeopathic Medical College and Hospital, 1863; a member of the medical staff of St. Mary's Hospital, Newark, N. J.; a member of the board of education from 1872 to 1881; a member, twice president and for five years chief health officer of the board of health of Newark; twice president of the New York Homeopathic Medical Society, and twice vice-president of the American Institute of Homeopathy; medical director, vice-president and president of the United States Industrial Insurance Company; assistant surgeon in the Army during the Civil War; died at the home of his son in Newark, April 28, from nephritis, aged 68.

Charles W. Hagen, M.D. Missouri Medical College, St. Louis, 1861; a member of the Medical Society of New Jersey; surgeon of the Fifty-fourth New York Volunteer Infantry, and later medical director of the Army of the Potomac during the Civil War; afterward aqueduct commissioner; coroner of Essex county, N. J., and a member of the board of supervisors; a member of the consulting staff of the German Hospital, Newark; died at his home in that city, April 5, from cerebral hemorrhage, aged 80.

James Presbury DeBruler, M.D. University of Pennsylvania, Philadelphia, 1899; a member of the American Medical Association; who entered the U. S. Navy Jan. 3, 1903; was commissioned passed assistant surgeon Jan. 3, 1906, and had a little more than four years' sea service, and two years' shore or other duty; died at San Juan, Porto Rico, May 7, on board the United States Gunboat *Paducah*, of which he was the medical officer, aged 32.

Phineas Phillips Nichols, M.D. Philadelphia College of Medicine and Surgery, 1856; formerly of Coldwater, Mich.; deputy register of deeds of Branch county, Mich.; from 1860 to 1864; and for the next four years register of deeds; publisher of the *Coldwater Courier* for several years; died at the home of his brother in Valley Forge, Pa., April 15, from cancer of the nose and face, aged 75.

Andrew Homer Scott, M.D. Jefferson Medical College, Philadelphia, 1868; a member of the Arkansas Medical Society; at one time president of the Pulaski County Medical Society; a Confederate veteran; and later physician to the state penitentiary; died at his home in Little Rock, from disease of the hip, due to an accident six months before, aged 68.

William Burgess Wall, M.D. Jefferson Medical College, Philadelphia, 1853; a member of the Medical Society of the State of California; president of the Pacific Coast Soda Company; the Santa Ana Commercial Company; the Santiago Orange Growers' Association, and the Santa Ana Oil Company; died at his home in Santa Ana, April 22, aged 79.

Harvey Williams, M.D. University of Michigan, Ann Arbor, 1871; a member of the American Medical Association, and a pioneer practitioner of Saginaw, Mich.; died at his home, April 22, from cardiac dropsy, aged 63. The Saginaw Medical Society, at a special meeting, held April 23, eulogized the memory of Dr. Williams in suitable resolutions.

Henry Joseph Coyle, M.D. Jefferson Medical College, Philadelphia, 1886; a member of the American Medical Association; and formerly president of the Beaver County Medical Society; a member of the staff of the Beaver Valley General Hospital; died at his home in New Brighton, Pa., January 16, aged 44.

James Clark Watson, M.D. Medical College of Virginia, Richmond, 1885; of Richmond, Va.; assistant surgeon in the Confederate Service during the Civil War; and in 1884 appointed surgeon to the Virginia Penitentiary; died in the Virginia Hospital, Richmond, April 30, aged 78.

Charles James McNamara, M.D. University of Toronto, 1889; of Barlow, N. D.; a member of the American Medical Association; for ten years a member of the Northwest Mounted Police; died at St. Mary's Hospital, Superior, Wis., from uremia, April 28, aged 43.

Solomon Jacob Best (license, Ill., years of practice, 1877); a practitioner of Freeport, Ill., for more than fifty years; said to have been the oldest member of the Stephenson County Medical Society; died suddenly from angina pectoris, at his home, April 26, aged 71.

Lemuel Cross, M.D. Albany (N. Y.) Medical College, 1856; for several terms a member of the board of education and board of U. S. pension examining surgeons of Cobleskill, N. Y.; died at his home in that place, April 26, from disease of the liver, aged 75.

Benjamin Ellsworth DuVall, M.D. Georgia College of Eclectic Medicine and Surgery, Atlanta, 1900; Chicago College of Medicine and Surgery, 1901; of Dixon, Ill.; died in the Lee County Hospital in that city, April 15, after an operation on the kidney, aged 41.

E. D. Frank, M.D. Louisville (Ky.) Medical College, 1891; of Prestonsburg, Ky.; was found dead in a cemetery near Lexington, May 1, from the effects of a gunshot wound of the head, supposed to have been self-inflicted with suicidal intent, aged 45.

John Duboise North, M.D. University of Michigan, Ann Arbor, 1859; local surgeon for the Jackson, Lansing and Saginaw and Michigan Central railroads for many years; died at his home in Jackson, April 30, from tumor of the esophagus, aged 75.

Henry Marshall Pinkard, M.D. Jefferson Medical College, Philadelphia, 1855; of Washington, D. C.; surgeon in the Confederate Service during the Civil War; died in the George Washington University Hospital, April 28, from nephritis, aged 71.

Burr L. Houghton, M.D. New York Homeopathic Medical College and Hospital, New York City, 1881; New York University, New York City, 1891; died suddenly at his home in Brooklyn, N. Y., May 1, from cerebral hemorrhage, aged 54.

Michael Riley Powers, M.D. Louisville Medical College, 1902; of Jeffersonville, Pa.; a noted professional baseball player; died at the Northwestern General Hospital, Philadelphia, from peritonitis, following an injury to the intestines, aged 38.

Norman Pitt Smith, M.D. Hahnemann Medical College, Chicago, 1881; a member of the American Medical Association, and of the International Association of Railway Surgeons; died suddenly at his home in Paris, Ill., April 29, aged 62.

William Ward, M.D. Georgetown University, Washington, D. C., 1871; a member of the Medical Association of the District of Columbia; a Confederate veteran; died at his home in Washington, April 19, from cerebral hemorrhage, aged 69.

Mark De Les Dernier Sheldon, M.D. Western Reserve University, Cleveland, 1850; for many years a practitioner of Story county, Iowa; died at the home of his daughter in St. Paul, Minn., April 11, from senile debility, aged 92.

Levin J. Woolen, M.D. University of Louisville, Ky., 1857; of Vevay, Ind.; state senator from Ohio, Ripley and Switzerland counties in 1878; for two terms auditor of Switzerland county; died at his home, April 20, aged 73.

David H. Miller, M.D. Medical College of Ohio, Cincinnati, 1867; a veteran of the Civil War; for three years a member of the school board of Franklin, Ind.; died at his home in that city, from nephritis, April 22, aged 66.

James J. Foster, M.D. Wisconsin College of Physicians and Surgeons, Milwaukee, 1903; a member of the American Medical Association; died at his home in Milwaukee, April 30, from disease of the liver, aged 40.

Horatio Gomez, M.D. College of Physicians and Surgeons, New York City, 1849; a charter member of the Medical Association of the Greater City of New York; died at his home in New York City, April 22, aged 82.

John Henry Norstrom, M.D. University of Pennsylvania, Philadelphia, 1893; a member of the American Medical Association; for many years a practitioner of Boone, Iowa; died in Austin, Texas, April 27, aged 57.

Chester M. Clark, M.D. Berkshire Medical College, Pittsfield, Mass., 1849; for several years clerk of the village board and a member of the school board of Galva, Ill.; died at his home in that city, April 25, aged 82.

John C. O'Dwyer, M.D. College of Physicians and Surgeons, Baltimore, 1900; died at the home of his mother in Ansonia, Conn., April 13, from valvular heart disease, following inflammatory rheumatism, aged 31.

Thomas William Radford, M.D. University of Louisville, Ky., 1851; three times treasurer of Jackson county, Mo.; died at the home of his daughter in Kansas City, April 10, from senile debility, aged 80.

Enos Greenamyer, M.D. Eclectic Medical Institute, Cincinnati, 1861; for many years a practitioner of Columbiana, Ohio; died at the home of his daughter in Lisbon, Ohio, May 1, from influenza, aged 77.

George Mills Boyd, M.D. Western University, London, Ont., 1905; a member of the Medical Society of the State of Pennsylvania; died suddenly from embolism, April 28, at his home in Philadelphia, aged 30.

Joseph W. Bates, M.D. Medical College of Ohio, Cincinnati, 1883; a member of the Indiana State Medical Association; died at his home in Broad Ripple, Indianapolis, May 3, from pneumonia, aged 51.

Ebenezer Everett Fisher, M.D. Homeopathic Medical College of Pennsylvania, Philadelphia, 1869; of Old Mission, Mich.; died at the home of his daughter, in Traverse City, Mich., April 27, aged 66.

Joseph H. Plunkett, M.D. Tulane University, New Orleans, 1890; a member of the Mississippi State Medical Association; died at his home in McComb City, April 29, from nephritis, aged 46.

Arthur Pearl Crafts, M.D. Long Island College Hospital, Brooklyn, N. Y., 1890; formerly of Cleveland, Ohio; died in the Michigan Asylum for the Insane, Kalamazoo, April 25, aged 42.

William L. Challiss, M.D. Jefferson Medical College, Philadelphia, 1849; of Atchison, Kan.; died at the home of his daughter in Toledo, Ohio, April 23, from senile debility, aged 84.

James Warren Freeman, M.D. Albany (N. Y.) Medical College, 1864; for many years a member of the Michigan State Medical Society; died at his home in East Saginaw, May 3, from inflammatory rheumatism, aged 80.

William L. Clagett, M.D. Medical College of Ohio, Cincinnati, 1874; a member of the Medical Society of the State of Pennsylvania; died at his home in Rummerfield, April 21, aged 88.

A. C. Vories (license, Ky., years of practice, 1894); postmaster of Boaz, Ky., for many years; and for 54 years a practitioner; died at his home May 1, from senile debility, aged 81.

Daniel S. Skinner, M.D. Detroit College of Medicine, 1899; of Saline, Mich.; died at the home of his parents in St. Mary's, Ont., from valvular heart disease, April 19, aged 51.

John A. McCreary, M.D. Tulane University, New Orleans, 1860; a member of the Medical Association of the State of Alabama; died at his home in Evergreen, April 26, aged 75.

James S. Curry, M.D. Medical College of Virginia, Richmond, 1867; of Petersburg, Va.; a Confederate veteran; died at the home of his daughter in Franklin, W. Va., April 28, aged 72.

Harry Clay McCormick, M.D. Philadelphia University of Medicine and Surgery, 1871; died at his home in Pen Argyl, Pa., March 9, from chronic interstitial nephritis, aged 65.

Willard E. Berkaw, M.D. University of Pennsylvania, Philadelphia, 1881; of Annandale, N. J.; for a time physician of Hunterdon county; died suddenly from heart disease, in the Annandale Hotel, April 29, aged 52.

William H. Griffiths, M.D. New York Homeopathic Medical College and Hospital, New York City, 1874; of Munnsville, N. Y.; died in Rome, N. Y., April 20, aged 54.

John E. Wesley (license, Utah, 1894); for more than half a century a practitioner of Salt Lake City; died at his home, April 25, from cerebral hemorrhage, aged 82.

John Blevins, M.D. American Medical College, Eclectic, St. Louis, 1881; a veteran of the Civil War; died at his home in Cove, Ore., April 19, from heart disease, aged 65.

William W. Payne, M.D. Southern Medical College, Atlanta, Ga., 1882; died at his home in Meridian, Miss., April 16, from pernicious anemia, aged 49.

Louis Edward Taubel, M.D. University of Pennsylvania, Philadelphia, 1885; died at his home in Philadelphia, April 26, from typhoid fever.

Ben McD. Trabue, M.D. Transylvania University, Lexington, Ky., 1848; died at his home in Allensville, Ky., April 15, from senile debility, aged 81.

Henry Benjamin Cragin, Jr., M.D. Rush Medical College, Chicago, 1901; of Chicago; died in a hospital in that city May 27, 1908, from cerebral meningitis, aged 33.

William Purdy, M.D. University of Louisville, Ky., 1884; a member of the Illinois State Medical Society; died at his home in Lawrenceville, April 15, aged 50.

William Wilson Coker, M.D. College of Physicians and Surgeons, Chicago, 1888; L.R.C.P., Ireland, 1872; died at his home in Chicago, May 1, from cerebral hemorrhage, aged 69.

Thomas Jefferson Denny, M.D. Cincinnati College of Medicine and Surgery, 1872; died at his home in LaFollette, Tenn., Oct. 10, 1908, from nephritis, aged 63.

Alvarado Middleditch, M.D. Albany (N. Y.) Medical College, 1856; a pioneer physician of Waterloo, Iowa; died at his home in Pasadena, Cal., April 26, aged 80.

Roloff Johnson, M.D. Northwestern Medical College, St. Joseph, Mo., 1888; died at his home in Normal, Ill., May 1, from disease of the stomach, aged 59.

Harrison A. Nichols, M.D. University of Michigan, Ann Arbor, 1868; died at his home in Plymouth, Mich., April 30, from cerebral hemorrhage, aged 63.

John Portuous Morison, M.D. University of Michigan, Ann Arbor, 1868; died at his home in Chicago, from cirrhosis of the liver, May 1, aged 66.

James G. Nellis, M.D. Hahnemann Medical College of the Pacific, San Francisco, 1888; died at his home in Irvington, Cal., April 23.

Martin S. Dowling, M.D. Eclectic Medical Institute, Cincinnati, 1873; died at his home in Leslie, Mich., April 27, aged 71.

Robert S. Albright, M.D. Rush Medical College, Chicago, 1884; died at his home in Beatrice, Neb., April 19.

Albert T. Carpenter, M.D. Detroit Medical College, 1891; died in Chicago, May 5, from paresis, aged 38.

Arthur Gamgee, M.D. Edinburgh; emeritus professor of physiology in Owen's College, Manchester; who won renown by his original research work in physiology and physiologic chemistry, and especially regarding the chemical and physical properties of hemoglobin, which were the subject of the Croonian Lectures delivered by him before the Royal Society in 1902; whose last work was inquiry undertaken for the Carnegie Institute on the "Present State of Knowledge of the Physiology of Nutrition;" a life devotee of science and an enthusiastic lover of scientific work; died in Paris, March 29, from pneumonia, following influenza, aged 67.

Manuel Amador, M.D. a native of Carthagena, Columbia; president of the State of Panama in 1869; one of the prime movers in the revolution against the United States of Colombia in 1903, which led to the independence of Panama, and first president of that republic; died in Panama, May 2, aged 75.

Society Proceedings

COMING MEETINGS

American Medical Association, Atlantic City, June 8-11.

American Academy of Medicine, Atlantic City, June 5-7.
Am. Assn. of Genito-Urinary Surgeons, Pocona, Pa., May 31-June 1.
Am. Climatological Association, Fortress Monroe, Va., June 4-5.
American Dermatological Association, Philadelphia, June 3-5.
Am. Gastro-Enterological Association, Atlantic City, June 7-8.
American Gynecological Society, New York, May 27-29.
American Laryngological Association, Boston, May 31-June 2.
American Laryn., Rhin. and Otol. Society, Atlantic City, June 3-5.
American Medico-Psychological Assoc., Atlantic City, June 1-4.
American Neurological Association, New York, May 27-29.
American Orthopedic Association, Hartford, Conn., June 14-16.
American Pediatric Society, Lenox, Mass., May 27-28.
American Proctologic Society, Atlantic City, June 7-8.
American Surgical Association, Philadelphia, June 3-5.
American Urological Association, Atlantic City, June 7.
Arizona, Medical Association of, Prescott, May 19-20.
Arkansas, Medical Society of, Pine Bluff, May 18-21.
Con. of State and Prov. Bds. of No. Am., Washington, June 4-5.
Connecticut State Medical Society, Hartford, May 26-27.
Illinois State Medical Society, Quincy, May 18-20.
Iowa State Medical Society, Dubuque, May 19-21.
Maine Medical Association, Portland, June 16-17.
Massachusetts Medical Society, Boston, June 15-16.
Missouri State Medical Association, Jefferson City, May 18-20.
Natl. Con. State Med. Ex. and Licensing Bds., Atlantic City, June 7.
New Jersey Medical Society, Cape May, June 23-25.
Rhode Island Medical Society, Providence, June 1.
Wisconsin State Medical Society, Madison, June 30-July 2.

MISSISSIPPI STATE MEDICAL SOCIETY

Forty-second Annual Meeting, held at Jackson, April 13, 1909

(Continued from page 1533)

Surgical Treatment of Complete Prolapse of the Uterus

Dr. J. Crisler, Jackson, described briefly the causes of uterine prolapse and methods for its prevention. He had operated on three cases of complete prolapse, doing vaginal hysterectomy. He stitched the broad ligaments to the under surface of the bladder and to the cuff of the vagina and finally stitched the vaginal cuff transversely. The bladder and inner extremity of the vagina were thus swung high by retraction of the ligaments. Any perineal laceration was then repaired. The operation was easy on the patient, though tedious for the operator, and recovery was usually complete in two weeks.

Indigestion from a Surgical Standpoint

Dr. J. Darrington, Yazoo City, discussed the surgical conditions which present those symptoms that combine to show the picture called indigestion by many physicians. He advocated early exploratory operation to determine and correct the cause. Too many of these patients were treated with medicine when surgery offered the only hope of cure.

DISCUSSION

Dr. Barksdale, Vaiden: There is no doubt that many of the ills that we attribute to little errors of secretion are due to some distinct lesion of the stomach which could and should be relieved by surgical measures, which if promptly taken can be carried through with very little danger. I should like to emphasize the importance of bringing to our aid in diagnosis early in these troubles the skill of the trained pathologist, in order that we may discover at once what the causing lesion may be.

Dr. H. L. Sutherland, Rosedale: Last fall a male patient was sent to me who had been having small hemorrhages from the stomach. He was sent to the hospital and had a considerable hemorrhage on the afternoon he reached there. That night he had a very violent hemorrhage and my partner was called to see him and notwithstanding that we used all the salt solution we could, the man died from the hemorrhage. Postmortem examination of the stomach showed that the lining of the stomach was normal, and evidently we had not reached the point at which the ulcer was located. The intestines could not be examined.

Dr. John Darrington: It would have been of interest to have gone into the different diseases of the stomach and bowels, the gall bladder and ducts, and the causes of hemorrhage. I had a case not long ago of continued hemorrhage, and on operation found cirrhosis of the liver with no evidence of ulcer of the stomach. It is the family doctor who is called into these cases because the patients can not digest food, have some acne eruptions, etc. The physician does not wait for hemorrhage to diagnose rupture of the bowels any more than he would wait for jaundice to diagnose gallstones, so he should not wait for hemorrhage to diagnose ulcer of the stomach.

The Importance of Surgical Diagnosis

Dr. A. G. Payne, Greenville, made an appeal for greater care and exactness in making diagnoses. The tendency for the surgeon and the internist to look at a case only from his own point of view had become too great. Each would do better work in proportion to the breadth and exactness of his knowledge and his ability to view a case from both sides. He cited several illustrative cases.

DISCUSSION

Dr. R. Wiss, Meriden: A woman was sent to me about four years ago who had been told that she had serious ovarian trouble and must have both ovaries removed. She was desirous of having a child; she had had one child, and had been ill for some years. I found an ulceration, and finally, after a test meal, I located the trouble in the stomach, and by washing the stomach she was restored to health. Later an operation was done for the ulcer. One year later I delivered her of a twelve-pound boy. The boy is now 3 years old, and both she and the child have remained perfectly well all the time.

Dr. Crisler, Jackson: Unfortunately it has been the habit of physicians to accept as a matter of course the symptoms that patients relate, and to this degree to allow the patient to diagnose his own condition. Of course at an autopsy we find that he was wrong, but then it is too late. Sometimes he is right, but that doesn't relieve us of the responsibility. I do not think the necessity for thorough abdominal and subpelvic examinations can be emphasized too strongly. In addition to a thorough examination we ought to enquire carefully if the patient has noticed any enlargements. It happened to be my misfortune some time ago for a woman to come to me with typical gall-bladder symptoms, and instead of going over her carefully as I should have done, I simply took her statements and drained the gall bladder and thought I had cured her. She gained very rapidly, and apparently got well. Three or four months later she returned complaining again and I found she had cervical cancer. It would have been easy at first to remove the gall bladder and avoid a second operation, and she now refuses to go under an anesthetic a second time. In appendicitis work we are misled more often than anywhere else.

Dr. H. L. Sutherland, Rosedale: I wish to refer to a book or paper written in the '70's by Hilton of London, called "Rest and Pain," and although a long time has intervened, that book is becoming more and more a classic. It shows how often we can be deceived by pains remote from the real lesion. In 1903, in New Orleans, Herrick of Chicago, read a paper on "Abdominal Pain in Pleurisy and Pneumonia." I think that is one of the best books I have in my library. It relates a good many cases in which lung trouble caused the pain. We all know that pains from the chest and lesions of the lungs are often referred to the abdomen in children. Herrick cites cases of patients sent into the surgical ward for treatment in which trouble with the lungs was the cause of the pain, and they were sent back to the medical wards again. About a year after I heard that paper read a young surgeon called on me and said he would like to have my assistance in a case of gall-bladder operation. I examined the patient at his request, and while the man may have had gall-bladder trouble, I do know that he did have pneumonia. I suggested that the surgeon treat the pneumonia first and the gall bladder later. The patient died of pneumonia, and the surgeon agreed with me afterward that the gravest trouble at that time was the pneumonia.

Dr. Carnes, Kosciusko: One cause which I frequently see, and which I believe is often overlooked, is nasal obstruction. This occurs frequently in any child and we should be on the lookout for it. The child passes through the day comfortably, but when it lies down at night it has night terrors, which are frequently ascribed to indigestion or worms. By passing the index finger along the palate the diagnosis is easily made.

Dr. Barksdale, Vaiden: Some years ago I had printed a form of examination blank which is even fuller than that used by the life-insurance companies. In this I take the complete family history, so far as obtainable, and then take up each symptom in detail, noting every departure from the normal. If a man will do this he will find that he can keep up better with his own work, and come nearer making diagnoses in a number of cases than if he goes at it in a haphazard way. I recently had a case of a young man with tuberculous history in whom I had reason to suspect tuberculosis, and I found from prompt reaction to the Moro test that my suspicions were correct.

Intestinal Obstruction or Ileus: A Plea for Earlier Diagnosis and Less Radical Surgical Intervention in Late Cases

Dr. D. P. Street, Vicksburg, described the various kinds of obstruction and the symptoms accompanying each. The mortality in these cases is far too high on account of delay in operating. He described the methods of treating the different kinds of obstruction medically and surgically.

Hernia; the Abuse of the Truss

Dr. S. W. Johnston, Vicksburg, considered the dangers of descent and strangulation of the gut in cases of hernia protected and treated only by the application of the truss. He cited four such cases that had recently come under his observation in which strangulation had occurred and advocated early radical operation as the best means of providing comfort and protection for the patient.

Uterine Fibromyomata

Dr. J. W. Barksdale, Vaiden, urged the immediate removal of all uterine fibroids as soon as diagnosed, quoting from Eastman, Cullen, Giles and others to emphasize his opinion that the comparatively small danger of early removal is not to be considered when contrasted with the distress, discomfort and danger that follow delay.

DISCUSSION

Dr. J. D. Donald, Hattiesburg: This subject of fibroids in the uterus is one of the utmost importance and gravity. One part of the paper that impressed me was the idea of not risking an early operation in the case of fibroids, because if there is any chance to preserve the female generative organs during the child-bearing period, it is greatly to be desired. I remember a case of labor in which this danger was very forcibly impressed on my mind. It was impossible to deliver the child without resorting to Cesarean section as the uterus was found to be surrounded by fibroid tumors. It was necessary to do a Cesarean section, and the patient died. It would have been so much more important if that woman's condition could have been recognized before this pregnancy and the uterus sacrificed while there was still opportunity to save that poor woman's life. I don't know that these tumors had ever elicited any complaint from the patient, because she was a woman who never made known her troubles, had never been examined, and consequently no one had any idea that the condition existed.

Dr. S. W. Johnston: We often find a sarcomatous degeneration of these fibroids, not suspected at the time of operation. I have seen several removed simply because of the pressure they exerted which interfered with urination or defecation, and have found this condition in many cases in which it was not suspected.

Dr. J. W. Barksdale: A great many women will not have these operations performed because they desire children. With reference to sarcomatous degeneration, it has been the practice at the Johns Hopkins Hospital for years to subject these immediately to a microscopic examination. It is on account of these degenerations which are so often found that I make this plea for the removal of the fibroids. No man would think of allowing appendicitis to run on until forced to operate—then why allow these symptomless fibroids to go on until they reach the stage where operation results fatally to the patient? I don't care how small or how large the fibroid is, so long as it can be felt, some sort of operation should be resorted to. I consider that every case is an operative case, pure and simple, and hence operation should be done as soon as the diagnosis is made.

Treatment of Gonorrhea in Women

Dr. G. R. Livermore, Memphis, Tenn., described the treatment of urethritis, inflammations of the vulva and Bartholin's glands, vaginitis, and endometritis of gonorrheal origin. His experience with the vaccine treatment has not been satisfactory.

SYMPOSIUM ON TUBERCULOSIS

The Campaign Against Tuberculosis, or the Conflict Between Applied Science and the Tubercle Bacillus

Dr. T. M. Jones, Hernando, considered the statistics of tuberculosis, reviewed the conditions under which the disease develops and described briefly the methods necessary for its prevention. It was a matter for public education, and though we failed again and again in persuading people to live properly, our war-cry should be, "Lay on, MacDuff!"

Tuberculosis

H. C. BUCK, Friars Point, traced the ancient history of the disease and contrasted our present with our former knowledge. He believed it inadvisable to send patients to the ordinary resorts on account of the dangers of infection from others. Isolation was the better plan and offered better chances of a cure.

Treatment of Tuberculosis

DR. H. CHRISTMAS, Tchula, touched on the subject of resorts for consumptives. Since the country was first settled, numbers of places had been advocated as being free from tuberculosis. These generally were free from inhabitants also, and their exploitation as health resorts was generally followed by a boom in cemetery lots. While it was universally accepted that drugs were worse than useless in tuberculosis, there were many indications for medication to promote the comfort of the patient, and there were many conditions that occurred in the course of the disease that must not be neglected.

Discussion on Tuberculosis

DR. F. J. MAYER, New Orleans: The subject of tuberculosis is so broad and has so many different phases that we can only take up a few at a time. The phase I have in mind now is the relation of beef and milk to tuberculosis. When we remember that from 5 to 50 per cent. of the cows of Mississippi are tuberculous, and that from 2 to 4 per cent. have a tuberculous lesion of the lacteal duct, and that therefore the bacilli enter directly into the milk stream, we must awaken to a realizing sense of the danger in which we stand. When there is a generalized tuberculosis there may also be a danger from the fact that the bacilli are found in the other secretions that enter indirectly into the milk, just as there is danger from milking an absolutely healthy cow in a tuberculous environment. When it comes to beef, I can only reiterate what I said before the legislature of Texas, that most of the beef of Mississippi and Texas is not fit to go into a stomach. I made the statement there that while Texas had the largest herds of any state in the Union, yet Texans ate the cribs and culls that were refused by the Federal inspectors for interstate shipment. It may be that some of these cows come to Texas and Mississippi. I know that they do to Louisiana. That statement was in a measure challenged as being so grave and serious that an authority was demanded. I gave as authority the state health officer of Texas, who, in a signed statement next day, said that in his investigations he had found conditions infinitely worse than I had painted them, but owing to the penuriousness of the legislature he was unable to prosecute his inquiries in the interest of the public health. As a delegate to the Tuberculosis Congress from the State Board of Health of Louisiana, I felt it my duty, in view of the lawsuit pending against the state health officer, to attend the section on animal diseases, and on my return I made a report which has never been published.

DR. R. M. SADLER, Okolona, presented a report of his observations at the International Tuberculosis Congress.

DR. CULLY, Jackson: In the treatment of any disease a correct and early diagnosis is of the gravest importance, and this responsibility rests largely on the general practitioner. I believe it is estimated that 80 per cent. of patients with tuberculosis will recover if treated in the primary stage. There are many things that the general practitioner can do. The education of the public is largely in his hands, and if he does not educate his clientele in the importance of measures to be taken against the ravages of this disease, we can hope to make no progress in the fight. One of the greatest menaces to the welfare of the human family is the negro servants and nurses in our homes. A large percentage of negroes are tuberculous. It is the duty of the physician that he ask his families to notify him when there is any suspicion of this disease among the servants, then he can report these cases and isolate them so far as the law will allow him to do so. I believe we are all too lax in our endeavors to prevent the spread of the disease through food, fruit, meat, milk, etc., and from the fact that we have not enforced those laws that would protect our fruits, beef, milk, etc., from infection by flies. I know how the fruits are kept on the streets, and that meat is hauled through streets from slaughter pens to shops, unprotected from dust, and after it gets to shops, it hangs there without protection of screens. Fruits are exposed on the streets where the insects can get at them and the dust lie on them, and thereby carry infection.

DR. H. M. FOLKES, Biloxi: The weak point in the campaign against tuberculosis is the failure to make prompt diagnoses. The gentlemen who conduct tuberculosis sanitariums have testified that 68 per cent. of the patients coming to these institutions for treatment have never had any really thorough examination of the chest. Talk about educating the public to eradicate tuberculosis, when the doctors themselves don't make the diagnoses, or else fail to tell the patient what is the matter with him! If the physician fails to tell a patient for fear of scaring him to death, and then outlines a course of treatment, the patient doesn't know what to think. I think that tuberculosis should be designated as the "great spit plague" rather than the "great white plague." It seems to me that the proper place to touch public measures, and to talk against consumption, is in the advanced grades of the public schools.

DR. R. WISS, Meridian: An interesting case came under my observation a few years ago. I had been making an analysis of urine for another physician. He brought me a specimen and told me he didn't know what was the matter with the patient except that he had a pain in his back and had lost fifteen pounds. I found nothing the matter with the urine, and thought he was playing a joke on me. I began making various tests and finally got a reaction for indican, which I found might mean cancer or tuberculosis. I tested for tuberculosis and got quantities of bacilli. I then discovered that the man's sister had just died of tuberculosis a few months before. The man was promptly put on treatment for tuberculosis, gained flesh rapidly, and recovered.

DR. A. G. PAYNE, Greenville: Will the Moro test give a reaction in a healthy individual or from any other disease than tuberculosis? I recently had a case in which the Moro test gave a positive reaction, which frightened the patient a great deal, so I tried it on absolutely healthy patients and got just as prompt reactions from those.

DR. J. W. BARKSDALE, Vaiden: I have used the Moro test in several cases in which it was negative. While my experience has hardly been sufficient to justify conclusions, yet I regard this test as being as reliable as any we have. In other cases in which symptoms indicated tuberculosis I have never failed to get a positive reaction.

DR. H. CHRISTMAS, Tchula: I hope the members of the association do not think that I favor giving much medicine in tuberculosis. I value fresh air and exercise, but I think there are always other symptoms that go with all diseases. A person who is too weak to go out and get the open air would need some other treatment. I believe as strongly as any one in the value of open-air treatment, but there are other things needed in conjunction with it. There are certain conditions accompanying every disease which every practitioner of medicine is bound to acknowledge should receive attention. I do not believe in people going away from home; I favor their staying at home and treating themselves at home.

DR. P. R. BROWN, West Point: As a profession I suppose we are pretty well a unit when it comes to the management of tuberculosis. I agree with Dr. Folkes that it is a disease in which medicine has really no place as a therapeutic agency. Of course we have to treat the symptoms sometimes and stimulate the appetite. Not much stress has been placed on the rest, however, and this I consider one of the most important factors, especially when there is elevation of temperature. I have been treating these patients with some success, and the main things I use are a good thermometer and a good pair of scales. I take the temperature once or twice a day and weigh the patient once or twice a week. I give no medicine except a little nux vomica or hydrochloric acid after meals. I advise raw eggs and an abundance of sweet milk, and do not allow the patient even to sit up when the temperature is up half a degree. I keep them in a tent or select a room with southern exposure, and give them plenty of fresh pure air day and night, and see that they get at least eight hours sleep at night, and about an hour at noon. In tuberculosis there is no danger of infection until the tubercles begin to break down or the patient begins to expectorate. Unless there is a decided predisposition to the disease, I think the danger is almost nothing in cases of occasional exposure.

Nervous Reflexes and Complications Due to Pregnancy

Dr. I. H. C. Cook, Hattiesburg, considered the nervous reflexes of pregnancy, particularly that of nausea, which he considered due to an anemia of the sympathtic ganglia. He outlined the customary treatment for such a condition.

DISCUSSION

Dr. Gray, Clarksdale: Vomiting and nausea during pregnancy have always been bugbears to the profession. For the past five years I have been using about one quarter of a pint of salt solution, three times a day, and absolutely nothing else; it has been more satisfactory than any other remedy I have used.

Dr. E. H. Martin, Hot Springs, Ark.: Ten years ago, I was called in consultation in such a case. The patient was suffering greatly with nausea, which nothing seemed to alleviate. The physician in the case, who knew that I had been dabbling in hypnotism, suggested that I try it on this woman, which was done: the woman was relieved and the child saved. However, although I have never seen a case that I could not control by suggestion, I would not advise physicians to try this method, as they do not always receive any thanks for their trouble. Some months after I had relieved this patient by suggestion, I saw her enter an office, just across the street. The doctor was not in, and after waiting some time, the woman came to my office and said that she was in great pain, and asked if I could not give her something to relieve her. I said that I could give her immediate relief by suggestion, but she said that she could not allow it, as her husband had made her promise never again to permit any man to hypnotize her.

A Comparison of the Physiologic Action and Therapeutics of Some Cardiac Stimulants

Dr. J. T. Longino, Jonestown, considered the physiologic action and therapeutic uses of strychnin, nitroglycerin and digitalis.

DISCUSSION

Dr. M. Alexander, Tunica: Digitalis, especially in the first stages of the disease, is almost a specific in pneumonia. The effect of digitalis is to lengthen the intervals and send the blood with increased force through the lungs. There are, of course, some objections to digitalis, but the objections are not nearly so numerous as physicians have been taught. When there is a lack of compensation digitalis is certainly needed.

Dr. H. Christmas, Tchula: I regard digitalis as a very valuable remedy in pneumonia. When the heart needs stimulating and there is a lack of compensation, digitalis should be given.

Dr. Rosa Wiss, Meridian: I am sorry that Dr. Longino deprecated the use of nitroglycerin, as I have always obtained good results from its use, and I think that the failure to get the proper results is due to the fact that enough is not given. I do not believe much in medicine, but I do believe that if it is to be given at all, enough should be given to do some good.

Dr. J. T. Longino: I wish to emphasize only one point, and that is, that in the administration of cardiac stimulants, the physician must let the condition of the blood vessels be his guide. In pneumonia there is apt to be a weak, collapsed heart, and nitroglycerin will be depressing and in such case I certainly advise against its use.

Water

Dr. S. E. Frierson, Lyon, described the uses of water in the human economy and the various conditions in illness in which its use, external and internal, is indicated.

DISCUSSION

Dr. E. H. Martin, Hot Springs, Ark.: No one drinks or uses as much water as he should. If people did there would be one-half as much sickness as there is. In a case of terrific mania, the patient was controlled and finally cured by being kept in a continuous bath for eight hours.

Dr. W. D. Hubbard, West Point: Sometimes it is not desirable to drink too much water. In cases of digestive disturbances water is bad, especially in dilated stomach. In advising a patient to drink mineral water, the physician should be certain that the properties contained in the water are what the individual needs for the particular trouble. My experience with iron water is that it is not good for persons suffering with digestive disturbances, but is good for kidney disturbances. I thoroughly appreciate the value of drinking good pure water, but think it unwise to advise anyone, regardless of their particular case, to dring as much water as possible.

The Uses and Abuses of Medicine

Dr. W. W. Reynolds, Meridian, contended for less medication. Placebos had a definite place in practice and not infrequently were absolutely necessary.

Peculiar Effects of Some Drugs

Dr. L. L. Minor, Hollywood, discussed the peculiar effects of some of our commoner remedies and related several instances of idiosyncrasy.

DISCUSSION

Dr. E. J. Johnson, Yazoo City: A drug which I have used successfully in kidney disease is spartein. To get good results from the use of this drug, it should be given in large doses; I give from one-half to two grains at a dose.

Dr. J. H. Harrison, Tillatoba: I give in large doses, with very good results. Most physicians err in giving too much medicine, and usually give it simply because the patient or the family expects it. When a medicine is needed, it should be given fearlessly.

Conclusions Based on Experience with Veratrum

Dr. G. S. Bryan, Amory, has found veratrum exceedingly useful. It is not a dangerous drug when properly used; in fact, is freer from danger than almost any other potent drug. If the specimen is fresh and free from impurities it is reliable. It has been used in doses entirely too small to give results; full doses have different effect from small ones. It is indicated in localized inflammations and active congestions and in all sthenic fevers. Veratrum provides for its own elimination and render safe the administration of drugs that would otherwise be dangerous.

DISCUSSION

Dr. C. F. Carnes, Kosciusko: I have used veratrum, with great success, in puerperal eclampsia, and never failed to give less than 10 minims.

Dr. Jones: What is the dose in puerperal convulsions?

Dr. Walter H. Rowan, Wiggins: I am of the opinion that the dose of veratrum in puerperal eclampsia is almost unlimited. I had a patient with eclampsia to whom I gave 30 drops every thirty minutes, until I had given 6 doses, making 180 minims at the end of 3 hours. I believe that treatment saved her life. I have seen, however, some bad results from the use of veratrum in pneumonia, but in puerperal eclampsia I always gave it and in large doses.

Dr. M. Alexander, Tunica: I consider veratrum as nearly a specific in puerperal eclampsia as any drug we have; I have never lost a case of eclampsia since I began using it. My dose is 20 drops, and in 30 minutes 10 or 15 drops, to be kept up until 2, 3 or 4 doses are given; and I have always been able to stop the convulsions. Veratrum, however, is a drug that should never be given unless the physician remains with the patient to note the effect.

DR. FRANK JONES, Memphis, Tenn.: I have never had any use for veratrum for anything or on any occasion. I think that the uterus should be emptied and the toxic condition would be relieved.

DR. T. H. HOLLOMAN, Ittabena: When veratrum is given, the physician should remain with the patient to watch the effect of the drug. In one case of puerperal eclampsia I gave veratrum, chloroform and morphin, and at the termination of the case was hard to say which drug had stopped the convulsions.

DR. PHILIPS: I agree with Dr. Bryan in regard to the use of veratrum in eclampsia. I have had many cases of puerperal eclampsia which came on after the uterus was empty; and I have never lost a case since I have been using veratrum. It must be used not for the dose, but for the effect. However, I can not agree that there is no danger in it, as I have had a personal experience with it, which proved that it is possible to take too much. I was suffering with a bad cough, and put up a cough mixture, veratrum being one of the ingredients. I kept the bottle in my pocket, and at intervals during the day took a sip. Just as I reached home I fell. When another physician arrived I could not speak, but motioned for a pencil, and when it was handed to me, wrote the word "veratrum." After repeated doses of whiskey I could speak.

DR. G. H. MCNEIL, Newton: Veratrum is the remedy for puerperal eclampsia. In two cases in which I was called hurriedly, and not knowing the nature of the trouble, I failed to take veratrum with me, so resorted to morphin and other remedies, but I could not control the convulsions. I then procured veratrum and used it with happy results. I give 30 drops, in 30 minutes giving 10 drops more. I have never used veratrum in pneumonia, and am afraid of it, but should I use it I would be certain to do so only in the early stages of the disease, and would watch it very carefully.

DR. YOUNG: When I was a young man I had a case of pneumonia, and the family becoming uneasy on account of my youth, asked me to call in the old doctor of the town. I did so, and the doctor was indignant because I used veratrum, but before the evening was over he consented to the use of the drug and the patient was much benefited. Nothing will take the place of veratrum in puerperal eclampsia.

DR. G. S. BRYAN: I do not know the maximum dose of veratrum in eclampsia. A physician should begin with a small dose and give it till he gets the effect. When used properly, the results will be good. I take it for granted that the doctor who gives veratrum knows how to give it, knows the dose to give, and knows what he is combating. I do not give it in every case of pneumonia, but when I think it is needed I give it and give it for effect.

(To be continued)

PHILADELPHIA COUNTY MEDICAL SOCIETY

Regular Meeting, held April 28, 1909

The President, DR. FREDERICK P. HENRY, in the Chair

SYMPOSIUM ON CANCER

Cancer Mortalities

DR. JOHN A. MCGLINN: In the decade from 1890 to 1900 cancer showed an increase of 12 per 100,000 population. Statistics show that cancer has increased in the United States from 53 per 100,000 population in 1890 to 70.8 in 1906. Statistics also show increases for all countries. From 1901 to 1906 increases were shown in cancer of stomach and liver 1.8 per cent.; mouth, 0.4 per cent.; intestines, 0.6 per cent.; skin, 0.1 per cent., and decrease in female genitalia 0.4 per cent.; breast, 0.1 per cent., and other unspecified organs 2.4 per cent. In England one out of 11 and one woman out of 8 over 35 years of age die of cancer. In the same country more women at all ages die of cancer than of phthisis. In the registration area of the United States for all ages one man out of 32 and one woman out of 11 die of cancer. After the age of 35 one man out of 17 and one woman out of 9 die of cancer. During this period more women die in the United States of cancer than phthisis. The age of greatest frequency is between 50 and 54, when one man in 14, and one woman in 5 die of cancer. If cancer had been cured in 1906 it would have shown a saving of life of 373,574 years, or a total saving of earning capacity of $224,144,400. Out of the total population of the registration area of males and females over 35 years of age in 1906 there have died, or will die of cancer 281,909 men and 518,185 women. The combined death rate for all surgical conditions, exclusive of cancer, in 1906 was 161.5. Cancer death rate was 70.8, so that practically one-third of deaths from all surgical conditions were due to cancer. The combined death rate from all preventable diseases was but 6.4 higher than cancer. Cancer of the stomach in males occurs in 43.06 per cent. of all cases and in females in 24.47 per cent. Cancer of the uterus occurs in 27.68 per cent. of all women. Eliminating the organs peculiar to the sexes, cancer is more frequent in men than in women. The most frequent time of occurrence in males is between 50 and 75 years and in females between 45 and 70 years. The greatest factor in the consideration of age, influence of the conjugal state, occupation, race and location of the disease is the average age of the people in certain states of social life and occupation and the question of maturity in reference to various races.

Some Conditions in the Growth of Tumors

DR. LEO LOEB: The questions confronting us in the investigation of the growth of tumors are: (1) Under what conditions does a tissue assume an increased energy of growth? Cancer in the respect of growth energy differs from the energy of growth that is manifest in the healing of wounds, in that in the former the gain in energy is transmitted from generation to generation indefinitely. (2) Under what conditions does hereditary transmission of an acquired increase of growth energy to the succeeding cell generations take place? (3) Why do we find an infiltrating growth in cancer. A single factor, such as separation of a piece of tissue from its normal surroundings, is insufficient in itself to produce a tumor. The effect of external agencies in the production of tumors is best studied in certain tumors on the external surface of the body, e. g., cancer produced by arsenic or by long-continued exposure to the Roentgen rays, or possibly by light (xeroderma pigmentosum). These agencies probably act by direct stimulating action on the epithelial cells. External stimuli can also be used to increase cancer growth, e. g., mechanical irritation. Tumors may increase in virulence after transplantation due to this cause, and it is a probable factor in the increase of virulence of recurring malignant tumors over the original growth after operation, and in the occasional conversion of a benign into a malignant tumor after operation or (more frequently) spontaneously. Not all tumors, however, are equally affected by mechanical irritation. The majority of internal chemical factors are unknown. There is no doubt, however, that embryonal malformations, e. g., pigmented moles, are frequently associated with cancer, probably for the following reasons: (1) The tissue being embryonal, its proliferative power is greater, and hence it is more likely to proliferate under stimulus; (2) the exposure of such malformations, by size and position, to mechanical stimulation; (3) the fact that the cause of a tumor growth may have been present during prenatal life, affecting embryonal cells which have larger potentialities for development than the cells of a specific tissue, and which, therefore, develop at first into a teratoma, and only secondarily into a cancer. Heredity also is one of the factors in the causation of cancer. From clinical evidence it seems likely that as a result of long-continued stimulation or as a result of a strong stimulus of short duration affecting especially sensitized tissue hereditary transmission takes place. This hereditary transmission of growth energy might be explained as due to micro-organisms, the tumor cells themselves in this case carrying with them the agency which causes the stimulus to continuous proliferation. The action of micro-organisms might also explain the conversion of a carcinoma into a sarcoma through their action on the connective tissue, to which they have been transmitted. The same factor might also explain the endemic occurrence of cancer in animals and in man. Other explanations, however, might well account for the transformation of tumors, and for the endemic occurrence of cancer in which hereditary conditions can not be excluded. If micro-organisms should be present in certain cases it is probable they act by stimulating cells similarly to other physical and chemical agents.

Early Diagnosis of Cancer of the Uterus

Dr. Thomas S. Cullen, Baltimore: In a certain percentage of cases at the Johns Hopkins Hospital there has been the association of carcinoma and myoma. In 18 instances carcinoma of the cervix was associated with myoma of the body: in 25 instances carcinoma of the body was associated with myomatous uterus. In the early stages the only clinical symptoms of carcinoma of the uterus are hemorrhage and discharge. Hemorrhage occurs in the early stages in quite a number of instances. The discharge is usually watery in character, depending on the breaking down of the tumor. In order to make an accurate diagnosis of cancer in the early stage it is necessary to remove a piece of tissue. If there is carcinoma of the body of the uterus it is necessary to curette. The diagnosis is more accurate as a rule than we can hope for in our usual clinical work. We not infrequently make mistakes in diagnosis which is only recognized after the tissue is removed. To be absolutely sure in making a diagnosis it is necessary that we be very familiar with the normal conditions. In the cervix the tissue looks the same practically in all stages of life. In the body of the uterus there are different appearances at different periods of life.

Cancer of the Breast

Dr. William L. Rodman read a paper on this subject and exhibited illustrative charts.

The Roentgen Diagnosis of Gastric Carcinoma

Dr. George E. Pfahler: A thorough physical and clinical examination should precede the Roentgen study, but this should not require more than days or weeks. The stomach should be empty and usually a purgative should be given. The chief objections are the danger to which the operator is exposed, the time consumed and the expense involved. Gastric carcinoma is demonstrable when it changes the course of the food through the stomach, when it decreases the volume, interferes with peristaltic action, fixes or displaces the stomach, causes an indentation in the stomach wall, or modifies the rate of evacuation of the gastric contents. Great caution and thoroughness will have to be observed or errors will be made, and this valuable method of investigation will fall into discredit.

Discussion on Cancer

Dr. James M. Anders: In every suspicious case of uterine disease a histologic examination, either of an excised portion of the growth, or of a scraping from the cavity of the organ, should be insisted on by the general practitioner. The use of the *x*-ray as a means of detecting carcinoma in the early stages marks a distinct advance in our diagnostic methods. Negative results of the *x*-ray examination, however, should not deter us from resorting to exploratory operation in an otherwise suspicious case. Dr. Rodman's view that carcinoma of the breast, as elsewhere, is for a certain length of time a local affection and curable in the majority of cases by operation, at present is entirely tenable. That the vast majority of tumors of the breast are malignant is appreciated by the general profession, but not by the laity, and I feel strongly that it is the duty of the profession to enlighten the public on these facts. I can see more reason why a woman past 30 years of age should regularly present herself to a competent surgeon for an examination of the mammary glands and of the uterus than to a dentist for an examination of the teeth. This need is emphasized by the remark of Dr. Rodman that carcinoma of the breast is for a long period entirely without pain. Hence, unless discovered accidentally by the patient, the condition is apt to be no longer a local one when discovered by the physician or patient. One aspect of this subject, which seems to me important practically, and which I have elsewhere stated, is that we should have a definite working hypothesis with reference to the nature of carcinoma—one that could be generally accepted by the profession. This would stimulate and crystallize investigation along certain lines and give us fundamental truths not possible in the present chaotic methods of research. I believe that carcinoma is of infectious nature. If the profession can not accept the view of the infectious origin of cancer, let us adopt the hypothesis of which Dr. Loeb has given us the underlying factors. Thus would these leading theories soon be either proved or disproved, and on the whole more substantial progress be made. Mayo Robson has pointed out that probably all cases of carcinoma follow on a precancerous condition, an ulcer. If this be true and such precancerous condition, as it often can be, is promptly removed, in future we may have a reversal of the statistics, so ably and forcefullly presented by Dr. McGlinn.

Dr. Henry S. Wieder: I have been impressed with the fact that in adenocarcinoma of the uterus we do not necessarily find infiltration. This has been more particularly observed in adenocarcinoma of the rectum. I have done most of the microscopic work for Dr. Rodman's department and have faithfully followed out all his benign and suspicious cases. I believe we have succeeded, in one or two cases, in operating on absolutely non-recognizable carcinoma, had it not been for the frozen section. A study of involution mastitis is of great importance, as 25 or 30 per cent. of such cases are liable to develop into carcinoma.

Dr. Judson Daland: We are unable to say what the *x*-ray will ultimately do in the diagnosis of gastric carcinoma. Much progress has already been made, but the wish of Dr. Pfahler and of other men working in this line is to be able to diagnose gastric carcinoma at so early a stage that surgical intervention will give results not heretofore attained. By the use of this method we can determine certain definite points in the study of the peristaltic waves. We recognize that indentations may occur by distinct definite spasm. We also know that indentations may occur from outside influences. Furthermore, we are able to study the relation and position of the shadow in regard to the pylorus which is very important.

Dr. W. L. Rodman: I have more faith in the *x*-ray examinations made by Dr. Pfahler than in the clinical gastric findings, and depend on his work more and more all the time.

AMERICAN GYNECOLOGICAL SOCIETY

Thirty-fourth Annual Meeting, Celebrating the Centennial of McDowell's Operation, held in New York City, April 20-22, 1909

(Concluded from page 1531)

Choice of Time of Operation for Pelvic Inflammation of Tubal Origin

Dr. F. F. Simpson, Pittsburg, Pa.: Abscesses easily accessible for evacuation without traversing the free abdominal cavity are often best treated by early drainage. In other instances delay with definite but simple treatment would probably prove the better course. Many patients will thus have the normal functions of their organs restored and avoid operation. For the remaining cases which demand operative relief I am in the habit of choosing a time, first, when the patient has recovered from her acute illness and when her margin of reserve strength has been raised to its highest point of efficiency; second, when her temperature has been normal for a minimum period of three weeks; third, when the inflammatory exudate about the diseased tube has been completely absorbed, and fourth, when a careful pelvic examination is no longer followed by a decided or persistent rise of temperature.

DISCUSSION

Dr. H. J. Boldt, New York: So far as my personal observation is concerned, it is dangerous to operate during acute suppurative salpingitis, as in 99 cases out of 100 it is possible to wait until the acuteness of the attack has subsided, which will depend entirely on the condition of the patient. We may operate in the interval, if there is sufficient indication for operation. I believe that in most instances in which women have gonorrheal infection the regaining of normal function of the organs of the pelvis is not to be expected. Whenever the Fallopian tubes are distended with pus to such an extent that we can readily palpate them through the cul-de-sac of Douglas we have no business to wait, but should open these tubes and evacuate the pus. It is unnecessary to do a radical operation in such cases.

Dr. J. Wesley Bovée, Washington: I would not be so conservative as to wait three weeks without a single rise of temperature during that time before operating. My experience with such appendages has been that they have not returned to normal; that rarely do they get into a condition for functionating, and that in most cases in which vaginal incision has been done for the emptying of pus the appendages and tubes require removal subsequently, and with them the uterus in some cases.

Method of Obtaining Reliable Knowledge of Exact Areas of Pain in Patients With Visceral Disease

Dr. Philander A. Harris, Paterson, N. J.: When a patient complains of pain, she is at once asked by the nurse to indicate the exact area of pain, and also to point to the center or point of most of her pain. The nurse then marks the outer boundaries, as well as the center or centers of pain complained of, employing therefor a definite code. All markings are maintained on the body until they are transferred by the physician to the history book or sheets. The nurse in entering on her notes descriptions of pains thus avoids the necessity of reference to anatomic regions.

Further Reasons for Examining and Removing the Appendix Before Closing the Abdomen

Dr. A. Lapthorn Smith, Montreal: Abdominal section has now a very low death rate. The few deaths which do occur are due to something going wrong, the cause for which has not always been discovered, even after the abdomen has been reopened. I believe that this unknown cause is in many cases a chronic appendicitis, which either suddenly becomes acute or which causes obstruction of the disabled intestine by adhesions. The death rate from puerperal fever is now very small, and the few deaths which take place can not always be attributed to infection by the doctor, nurse, or even by the patient herself. I think that the abdomen should be opened and the appendix examined in every serious case, as I believe that many supposed deaths from puerperal fever are really due to a perforated or gangrenous appendix. The removal of this dangerous and useless organ, when it can be done without adding materially to the danger of the laparotomy, would insure the patient against the serious risk at a subsequent confinement.

DISCUSSION

Dr. Andrew F. Currier, New York: All will agree that, inasmuch as the appendix is such a vicious organ, it is well to look at it, and see what the trouble is. Supposing a small appendix is found without any appearance of disease, would there be justification for taking it out? It is rather straining the argument to conclude that because a patient complains of trouble in the region of the appendix it must of necessity follow that this organ is at fault. I think the principle laid down long ago, that the function of the surgeon is to remove diseased tissue or diseased organs is perfectly sound and safe, and the more we vary from that fundamental principle, the more likely are we to do harm. An operation for appendicitis is not absolutely free from danger. There are many cases in which hemorrhage has resulted and death followed. We should remove nothing but diseased tissue, and that which is not diseased should be left.

Dr. Reuben Peterson, Ann Arbor, Mich.: Some years ago I gave the results of the removal of about 200 appendices when the abdomen was opened for the removal of other pathologic conditions. I showed then that 50 per cent. of the appendices were microscopically diseased, and presented a detailed report of my findings. At that time many members took exception to my conclusions that the appendix should be removed at the time of an abdominal operation undertaken for other conditions unless there were contraindications to it; consequently, I determined that I would only remove the appendix when it was macroscopically diseased in the same number of operations, if possible, to prove whether my conclusions were correct or not. Since that time I have only removed the appendix when it was macroscopically diseased, and my prediction has not been fulfilled, in that I have not had a case that has given me any trouble, when I have examined the appendix and have not found it macroscopically diseased and have left it within the abdomen. My position at present is that the appendix is always looked at in every abdominal operation, and if it is diseased macroscopically to such an extent that it seems wise to remove it, it is always removed. If, however, it is apparently normal it is left.

Dr. I. S. Stone, Washington: I have had the misfortune of diagnosing in a certain case salpingitis as the cause of the patient's trouble, and yet at the operation I have found very little or no evidence of disease there. The appendix was examined and it did not explain the cause of the trouble, but after investigation the gall bladder was found to be the seat of trouble. This has been found in other instances to be the cause of trouble in the large clinics of this country. There may be symptoms of one disease, but on looking elsewhere more trouble is found than was expected.

Dr. J. Montgomery Baldy, *Philadelphia:* I was one of Dr. Peterson's critics at the time he presented his paper years ago. I rarely ever open the abdomen without examining the appendix, and rarely do I find anything the matter with it, that is, an infective disease coming from the interior of the appendix.

Dr. Joseph Taber Johnson, Washington: I have advocated for a long time the theory of letting a perfectly healthy appendix alone. I could never see any rule or ethical right to remove a woman's appendix when it was healthy, when engaged to do absolutely another operation.

Dr. J. Wesley Bovée: Until we can decide the question of whether the appendix is diseased or not from its macroscopic appearance, I do not think we can settle the other question of whether to remove it or not. We get patients who have localized symptoms, and it is decided that their cases are chronic or recurrent types of appendicitis. We operate, and have been surprised to find that their appendices were normal. I recall the case of a girl of 17, who had been in the hands of general practitioners. She had three attacks of what was called appendicitis. I operated on her, and removed what I thought was a healthy appendix. The appendix was examined by a pathologist of the hospital, who pronounced it one of the most typical cases of chronic appendicitis he had ever seen, yet the organ was perfectly normal in appearance.

Ovarian Tumors Complicating Pregnancy, Labor and the Puerperium

Dr. Herbert R. Spencer, London, Eng., presented a table of forty one cases. An analysis of the table shows that the youngest patient was 20, the oldest 43, the average age being thirty.

Referring to the treatment, he said: The treatment of ovarian tumors complicating pregnancy, labor and the puerperium has been considered too much from a surgical standpoint; the obstetric aspect is not less important and in some cases is the dominant factor. Among the fifteen patients whom I have treated during pregnancy, there were three cases of contracted pelvis which necessitated the induction of premature labor in two of the cases, and would have done so in the third had the patient not aborted. A contracted pelvis may profoundly modify treatment and an obstetric examination of the pelvis should be made in every case. The existence of bilateral tumors in patients who have not had children may justify the postponement of operation in the hope of obtaining a living child, and should lead us whenever possible to conserve some part of the ovary. The scheme of treatment which I offer for discussion is as follows:

(A) During the first half of pregnancy ovarian tumors should be removed wherever their situation and whatever their size. The following tumors should not usually be removed: (1) Lutein cysts complicating *hydatidiform* mole; (2) bilateral tumors causing no symptoms, if the patient is childless, or, if operated on, part of an ovary should be left behind; (3) primary adherent malignant cysts; (4) secondary malignant cysts.

(B) During the second half of pregnancy: (a) All large ovarian tumors and ruptured, inflamed and strangulated tumors should be removed; (b) small tumors which are in the abdomen or which can be easily pushed up out of the pelvis in the knee-chest or Trendelenburg position should be watched, and if no untoward symptoms arise should be removed either at the end of pregnancy or toward the end of the first stage of labor or after delivery; (c) small tumors which are incarcerated in the pelvis and can not easily be replaced in the abdomen may be watched and removed at the end of pregnancy or, if circumstances will allow, toward the end of the first stage of labor. If the tumors are adherent or solid, Cesarean section should be done. In all ovariotomies during pregnancy the vessels of the pedicle should be separately tied; the pedicle should be ligated as far as possible from the uterus and morphin should be given for the first two or three days after the operation.

(C) During labor the best treatment is abdominal ovariotomy, immediate in the case of large tumors, at the end of the first stage or after delivery in the case of small tumors. When done at the end of the first stage a second operator may deliver the child by forceps while the tumor is being removed. If the tumor be incarcerated in the pelvis the uterus should be withdrawn from the abdomen in order that the tumor may be dealt with. For solid and adherent tumors occupying the pelvis Cesarean section may be necessary. It should not be performed for cystic non-adherent tumors. When labor is advanced and a cystic tumor is impacted in the pelvis the circumstances may render it advisable to deliver the patient by the natural passages after evacuating the contents of the tumor by incision and packing the cyst with gauze; but the tumor should, if practicable, be removed within twenty-four hours, preferably through the vagina. Vaginal ovariotomy may be performed in non-adherent cases; but, though simpler in technic, it is inferior to the abdominal operation in that there is greater danger from hemorrhage, difficulty in safely tying the pedicle, the necessity of cutting up the tumor, impossibility of examining the other ovary and the presence of the vaginal wound. Induction of premature labor, forceps, version and simple tapping of a cyst as means of overcoming the dystocia produced by ovarian tumors are contraindicated.

(D) In the puerperium, ovarian tumors should be removed as soon as practicable, when possible, within twenty-four hours of delivery. If there is doubt as to the aseptic conditions of the uterus a delay of a week or two may be advisable, unless indications of strangulations or infection of the tumor arise, when it should be immediately removed.

Ovarian Tumor with Twisted Pedicle Complicating Pregnancy

Dr. Edward P. Davis, Philadelphia, reported a case of ovarian tumor with twisted pedicle, which suggested some points of interest in connection with this subject. The patient was a married Polish woman, pregnant for the third time. In the case reported, the decision to deliver by abdominal section was based on the presence of a contracted pelvis, the failure of the child to descend, and the recognition of an abdominal condition of the abdomen possibly due to pelvic contraction. It was recognized that this abnormal abdominal condition might depend on some other complication, which could only be successfully dealt with by abdominal section. Study of the subject leads to the belief that but one course of treatment is justifiable in cases of ovarian tumor with twisted pedicle complicating pregnancy, namely, removal as soon as the diagnosis of the condition can be made; or as soon as indications of this condition are present; the complications of twisted pedicle are so serious as to demand immediate operation. If an exact diagnosis before operation is impossible, the conditions which simulate twisted pedicle in themselves demand operation. In the absence of an exact diagnosis, the obstetrician should operate in the interest of the patient.

Discussion on Ovarian Tumor

Dr. Charles M. Green, Boston: I recall two cases of ovarian tumors complicating pregnancy. One of the women was four months pregnant. A diagnosis of very large cyst was made and the tumor was removed; the woman went to term, and was delivered safely. In a second case, a diagnosis of pregnancy was not made except by the history. The tumor was large. The abdomen was opened, and the tumor was found to be a multilocular cyst. A large trocar was used to withdraw the fluid, and as a result a considerable amount of the contents escaped into the abdominal cavity. This was wiped out. The uterus was found to be seven months pregnant, and was concealed behind a large tumor. The pedicle was tied as far as possible from the uterus. The woman made a pleasant convalescence, and shortly will be confined.

Professor Hofmeier, Würzburg, Germany: I have operated for the removal of tumors during pregnancy, labor and the puerperium, in thirty or forty cases. I think it wise to operate in every case in which the tumor gives trouble. In the early stage of pregnancy with tumor, the tendency to abortion is great, and it is better to operate at this time than later. Abdominal section should always be resorted to, and not vaginal section.

Dr. Henry D. Fry, Washington: It seems to me that the pedicle becomes twisted as a complication of pregnancy more about the fourth or fifth month or in the puerperium, and my idea has been that it is due to the fundus of the uterus at that time being just about high enough for the tumor to rest on it, and then any movements or contractions of the uterus or abdominal wall twist the pedicle of the tumor. In a case which I had twisting of the pedicle occurred about the fourth month; there was complicating appendicitis, and the woman had most excruciating pain. I did not know she had this ovarian tumor with twisted pedicle until I made an incision for appendicectomy.

Dr. Edward Reynolds, Boston: I recall six cases of large tumors complicating gestation and have had a number of smaller ones. In three cases of advanced labor there has been a large ovarian cyst impacted in the pelvis. In two cases I was able to raise the tumor by taxis and deliver the women by forceps. In both instances the tumor was removed later. In a third case the tumor resisted taxis, I opened the abdomen, raised the tumor by intra-abdominal taxis, removed it, and then, as the patient was advanced in labor, another operator applied forceps while I watched it from above, finally effected delivery, and closed the abdomen. In two cases I have operated at term, once removing a 28-pound ovarian tumor and a 12-pound child by Cesarean section.

Dr. Matthew D. Mann, Buffalo: I wish to report the case of a woman with a large tumor whom I saw in consultation. She was advanced in pregnancy, and I advised that an operation be done at once, as she was uncomfortable on account of the size of the tumor. She refused operation, went through pregnancy and labor without any trouble, and had two subsequent pregnancies with the presence of this enormous tumor. She finally died after her last labor had been successfully accomplished. This case is a strong argument for the removal of large tumors complicating pregnancy.

Dr. William Gardner, Montreal: I recall two cases of tumors complicating pregnancy that came under my observation many years ago. In one the tumor was removed without interrupting pregnancy, and the woman was subsequently delivered at term. The second patient was delivered in the eighth month successfully after the removal of a large tumor.

Dr. J. Wesley Bovée: In considering the removal of ovarian tumors during pregnancy, the size of the tumor has much to do with it. I have removed double pus tubes in the presence of a two months' pregnancy, and the woman has gone to term and has been delivered safely afterwards. The presence of double tumors is supposed to be a contributory cause of torsion of the pedicle.

Dr. Joseph E. Janvrin, New York: It seems to me that pregnancy increases the symptoms of torsion of the pedicle and makes it more apparent. Twisting of the pedicle in cases uncomplicated by pregnancy is not infrequent. I have seen fully a dozen such cases in which there was no pregnancy, and in which there were no special symptoms of twisting of the pedicle of the tumor.

President's Address: Ephraim McDowell, the Father of Ovariotomy

DR. J. RIDDLE GOFFE, New York, gave an interesting and valuable historical sketch of McDowell and ovariotomy, and closed his address in the following words: "A hundred years—a century—have rolled by since that day, and yet the luster of McDowell's achievement has grown steadily brighter to the present time. It was a fertile seed which, planted in appropriate soil, has risen to a mighty tree. It has manifold branches and has borne abundant fruit. McDowell did not live to see his operation adopted as a recognized surgical procedure, but he did have the satisfaction of knowing that Dr. Johnson, the editor of the *Medico-Chirurgical Review*, who declared in 1825 that he did not believe the operation had ever been done successfully and probably never would, the following year published in the same journal a recantation in which he said: 'A back settlement of America—Kentucky—has beaten the Mother Country, nay Europe itself, with all the boasted surgeons thereof, in the fearful and formidable operation of gastrotomy, with extraction of diseased ovaries. In the second volume of this series we adverted to the cases of McDowell of Kentucky, published by Lizars of Edinburgh, and expressed ourselves as skeptical respecting their authenticity. Dr. Coates, however, has now given us much more cause to wonder at the success of Dr. McDowell, for it appears out of five cases operated on in Kentucky by McDowell, four recovered after the operation and only one died. There were circumstances in the narrative of the first three cases that caused misgivings in our minds, for which uncharitableness we ask pardon of God and Dr. McDowell of Danville.' A broad and searching examination of all the claims put forward by aspirants, or their friends, to the honor of antedating McDowell has proved them, one and all, entirely groundless. The wide dissemination of the facts on which this decision rests, and the ripening influence of time have brought the members of the professional world into accord on this subject, so that I think I am safe in saying that in this centennial year McDowell is universally recognized throughout the world as the originator of the operation and entitled to be proclaimed the Father of Ovariotomy. McDowell was born Nov. 11, 1771, and died Jan. 25, 1830, in the fifty-ninth year of his age. Peace be to his ashes and glory be to his name."

SYMPOSIUM ON ANESTHESIA

The Nurse as an Anesthetist

DR. J. MONTGOMERY BALDY, Philadelphia: My inclinations lie in the direction of women as anesthetists, particularly trained nurses. The education of the trained nurse lies largely on medical and surgical lines, and she has, therefore, unless we except the woman physician, a sounder basis than have other women on which to begin. I can readily see that some women physicians would and will be available for the service, but in most instances many of the most serious objections obtain in their case as do in the case of men physicians. To the nurse, anesthesia will prove a stepping-stone to something better than she has originally chosen, a higher and more dignified position, and will appeal in its own way to her ambition and pride just as does the superintendency of a training school. The field will prove interesting, and my experience has shown that it will stimulate her to an effort to improve and perfect herself, and earnestly study the whole matter in hand.

Administration of Anesthetics

DR. H. J. BOLDT, New York: The competency of the anesthetizer is frequently more important to the surgeon than the competency of the latter's first assistant. Of the anesthetics usually used, ether is the least dangerous to life, although in some cases chloroform is the safer anesthetic. The belief that ether is more injurious to the kidneys than is chloroform is erroneous. Transitory albuminuria is common from the inhaling of either anesthetic, and casts are usually found in the urine for several days subsequent to the anesthetization. No anesthetic is entirely free of danger. Nitrous oxid mixed with oxygen is the safest, and if given by a competent anesthetizer may be administered for very long operations. Preliminary narcosis with scopolamin and morphin is considered risky, and should not be used by any one except an expert anesthetizer. Patients who are nervous and apprehensive as to the outcome of the anesthesia may be given a single preliminary dose of a narcotic twenty or thirty minutes before the inhalation anesthesia is begun. With patients who have nephritis, another method of anesthesia than that with ether or chloroform should be considered. Occasionally scopolamin-morphin narcosis answers for this purpose, and when these drugs are not followed by ether or by chloroform, the narcosis seems free from risk. Hypodermic injections of strychnin should not be indiscriminately used. Every hospital should have a person thoroughly trained in the giving of anesthetics. This duty should never be intrusted to an inexperienced person, as, for instance, a junior interne who has had perhaps only one or two practical lessons.

Anesthetics in Hospitals and Private Practice

DR. JAMES T. GWATHMEY, New York: The administration of anesthetics as a specialty is recognized in only a few of the larger cities of America to-day. In the light of recent discoveries, no surgeon is justified in adopting some one anesthetic and method of administration exclusively. There are four general anesthetics in common use, and there are three methods of administration. Nitrous oxid and oxygen is the only nonpoisonous anesthetic available to-day. Unfortunately, it is considered by men of large experience adapted to only about 30 per cent. of the surgical cases, namely, weak, anemic men and middle-aged women. These patients should have the benefit of this anesthetic whenever possible. Nitrous oxid and oxygen, supplemented by ether, can be used in at least 60 per cent. of all cases. Nitrous oxid and oxygen can and should be used as a preliminary to ether in at least 80 per cent. of the surgical cases. Oxygen administered with warm chloroform, either by the closed or open method, doubles its value as regards life, and given in this way it is as safe as ether and air. Ethyl chlorid is used principally as a preliminary anesthetic or for very short operations, and while not as safe, generally speaking, as nitrous oxid, is safer than this gas in certain selected cases. The problem to-day is not the matter of life and death on the table, but what methods and combinations will give the best results and leave the patient just as we found him.

Proper and Improper Methods of Administration of General Anesthetics

DR. S. C. GORDON, Portland, Me.: The first and most important point to be observed in the administration of an anesthetic is the proper preparation of the patient, both physically and mentally. The dread of the anesthetic is often much greater than that of the operation. Much may be done to prevent this. Second, too much haste is used in administration and too large a quantity used. Inhalers are faulty in construction; the simplest is always the best. The drop method is the true one. The cover of the mask should be porous and should allow the transmission of air through it during respiration. Third, careful attention is necessary on the part of the anesthetist, who should have an acquaintance with the ordinary, normal condition of the pulse and respiration, and a medical man or a trained nurse is preferred.

Renal Excretion During the Administration of Chloroform and Ether in Gynecologic Operations

DR. J. WESLEY BOVÉE, Washington, D. C.: 1. From the study of sixteen cases it would appear that the rate of excretion of urine is markedly lessened under anesthesia produced by ether or by chloroform. 2. Such diminution is greater from chloroform than from ether. 3. While chloroform produces a diminution in urea output, this continues to maintain a nearly normal proportion to urinary excretion, while ether produces a greater proportionate lessening of urea than of the urine. 4. These two anesthetics, when carefully and skilfully administered, have little effect on the production of casts and albumin in the urine, inducing it in some, stopping it in others and in others either not producing it or not materially modifying such production. 5. The Trendelenburg position greatly retards the rapidity of urinary output.

Adivsability of Making Practical Administration of Anesthetics a Required Part of the Medical Course

DR. REUBEN PETERSON, Ann Arbor, Mich.: The necessity of such instruction is shown by the experience of the past. There is inconsistency in requiring proficiency in the so-called scientific branches of medicine while the student is allowed to graduate without having given an anesthetic. It is feasible to establish such a course as a part of the already overcrowded curriculum, and it can be done by the proper utilization of much time now wasted in unsystematic teaching. The whole question of the proper administration of general anesthetics in hospitals and in general practice is dependent on the scientific teaching of the subject to undergraduates.

The Trained or the Untrained Anesthetist

Dr. Hunter Robb, Cleveland, Ohio: I would tentatively propose the following suggestions: 1. That a skilled anesthetist holdiing an appointment in the medical school as one of the faculty, and in the hospital as one of the staff, be appointed at a proper salary to teach and demonstrate the administration of anesthetics, and to personally administer them to the private patients, and to those in the general wards who are in a debilitated condition. 2. That in connection with a carefully prepared course of lectures on anesthetics and their physiologic action, each student be required to administer anesthetics to dogs or other animals a certain number of times. 3. That the lecturer next take the students the rounds of the operating rooms, and point out to them the details in connection with the service, and the points to observe in giving an anesthetic to the human being. 4. That each student be detailed to give the anesthetic at a certain number of operations under the guidance and criticism of the instructor, or one of his more advanced students; in this way we can be assured that all of them will have at least a fair amount of general experience. 5. That the senior, instead of the junior, interne be detailed to administer the anesthetic, as he would have had the opportunity of following and also of assisting with the administration of the anesthetic in a considerable number of cases by the time he has reached the position of senior assistant. I do not present this as a detailed plan, but in order to give an outline which can be developed according to the various conditions which exist in the different hospitals.

Dr. Robert L. Dickinson, Brooklyn, N. Y., detailed his experience with visiting anesthetists in some Brooklyn hospitals.

Improved Methods of Obtaining Anesthesia in Hospital Practice

Dr. J. Clarence Webster, Chicago: The routine administration of ether, as practiced in America, is to be condemned, because of unpleasant or dangerous sequelæ. My method consists in administering nitrous oxid with oxygen (2 per cent.) until the patient is unconscious, then ether until complete anesthesia is obtained. The latter is then abandoned, and the operation is performed under the influence of the nitrous oxid and oxygen mixture. This may or may not be followed by pure oxygen for twenty minutes. This method means greater safety and fewer unpleasant or serious after-results. Local anesthesia should also have a more important place in practice, and should supersede general anesthesia in certain cases.

Remote Results of Ovariotomy

Professor Hofmeier, Würzburg, Germany: In retention cysts, fibroids, dermoids and pseudomucin cystomas, ovariotomy gives excellent results. The danger of secondary affection of the other ovary does not exist. The danger of a later spontaneous (idiopathic) affection is very slight; therefore, the removal of the one diseased ovary will be sufficient. With reference to the slight possibility of secondary implantations of the pseudomucin cystomas, special precaution during the operation is required. If there is a suspicion of carcinomatous degeneration of the removed tumor, the removal of the other ovary, which seems to be healthy, is not absolutely necessary in younger women. The resection of a beginning growth of the second ovary is only allowed in cases of retention cysts, fibroids, or dermoids. In cases of pseudomucin cystoma it is only allowed if the patient is ready to risk a second operation later; it is absolutely forbidden in carcinoma. In cases of cystoma serosum papillare, pseudomyxoma, sarcoma and teratoma, complete cure is possible, especially for papillomata and pseudomyxomata, even when bilaterally developed; also for unilateral sarcoma and teratoma. If on thorough macroscopic examination the second ovary seems to be healthy, it may be left, as the removal of both ovaries is detrimental to the general health of young women, and as the danger of a spontaneous attack of the second ovary is not very great. The state of the ovary, however, must necessarily be watched for several years. If both ovaries are diseased they must be completely removed with the uterus.

Influence of Corsets and High-Heeled Shoes on Symptoms of Pelvic and Static Disorders

Dr. Edward Reynolds and Dr. Robert W. Lovett, Boston, contributed a joint paper on this subject:

This is an incomplete and merely preliminary report from the clinical and gynecologic point of view only of some of the results of experimental observation which have extended over about three and a half years on the general subject of the influence of attitude and proportion on abdominal and skeletal disorders, conducted from the gynecologic and from the orthopedic points of view. There is a large portion of the clinical field in which the patients are either suffering from both static (orthopedic) and pelvic lesions due to a common cause, or present symptoms which might be due to either, and demand a differential diagnosis. The experimental investigation of balance in the erect posture is a subject exceedingly difficult of investigation. The keynote to its comprehension is to be found by studying the relation of the center of gravity to the several portions of the skeleton. Certain types of figures tend to be free from ptoses and static ailments. Certain other types are inherently liable to them. The stable types of figure are but little affected by the varying types of corsets and shoes. The unstable types are greatly affected for good or evil by these articles of dress. In corsets there are types which are always productive of evil, and types which are sometimes thoroughly desirable and productive of good. From a gynecologic point of view, the effect of shoes must be considered in connection with that of corsets.

Surgical Treatment of Dysmenorrhea and Sterility in Women

Professor Samuel Pozzi, Paris, described with great detail an operation for the relief of dysmenorrhea and the cure of sterility in which thus far he has not experienced a single failure. After this operation cervical metritis due to stenosis rapidly disappears, including leucorrhea. As regards sterility, in more than 25 per cent. of his patients pregnancy followed the operation, the women going to term without accident, and labors being normal. Rigidity of the cervix is not to be feared, for there is no cicatricial tissue as occurs after some amputations of the cervix.

Significance of Peritoneal Adhesions Following Operations

Dr. Henry T. Byford, Chicago: While classifying the formation of adhesions as one of the defensive acts of the peritoneum, I call particular attention to their secondary or harmful effects. Operations which lead to their production are either imperfectly or improperly performed, and extensive adhesions following poorly performed operations sometimes cause more suffering than was felt before. This is illustrated by cases from my records showing that serious conditions are sometimes due to postoperative adhesions of limited extent, and may be relieved by their separation. The mere separation of adhesions about diseased organs may lead to a cure of the symptoms, and that when the original causes of the adhesions are removed, the secondary adhesions that follow a properly performed operation are less extensive and less permanent. When postoperative adhesions are intestinal in character, muscular exercise and intestinal activity tend to relieve them without operative aid. Omental adhesions cause less immediate trouble, but the omentum has not the power of separating itself as have the small intestines. They act by interfering with the functions of the organs to which the omentum is attached, and by dragging on the stomach and colon, causing or perpetuating gastroptosis and dilatation of the stomach. The prevention of these postoperative adhesions is not to be attained by any one procedure or remedial agent, but by a properly executed technic. My preference is for small incisions with the performance of as much as practicable of the deep work by touch, and of the remainder at the surface, and without the introduction of sponges or packs into the abdominal cavity. When septic conditions and deep suturing or other manipulations requiring the supervision of sight are present, it is necessary to make a long incision and pack the intestines out of the way. In pelvic cases, after a digital exploration I place the patient in the Trendelenburg position and try to make the intestines sink out of the field of the operation and assume their own position. A firm, immovable barrier of gauze can then be placed against them with almost no manipulation or relative displacement. With regard to drainage in laparotomies for pelvic conditions, I have the best results with the old-fashioned glass fenestrated tube; but I only leave it in place for a few hours and then supplant it by a strip of gauze that barely penetrates between the peritoneal edges. This gauze is changed about every four hours for two or three times, and the opening is then allowed to heal by adhesion, or so called first intention. Such slight intestinal adhesions as form are soon broken up by peristalsis. When a gauze tampon drain is required, I prefer to place it low down and bring the end out through a large opening in the posterior vaginal fornix, and thus avoid the production of intestinal adhesions.

DISCUSSION

DR. JOHN G. CLARK, Philadelphia, discussed the anatomical and pathological factors concerned in the promotion of adhesions, and described some hitherto overlooked points in the technic which lead to this sequel. He likewise spoke of the frequency of postoperative adhesions and discussed their treatment.

DR. HENRY C. COE, New York, compared the present with the former after-results of laparotomy. Of from 70 to 75 patients who recovered from the operation in preantiseptic days, many were practically invalids for life, due to imperfect technic. Complications that are now rare were then common. The reasons are unskilful manipulation, infection, use of large silk ligatures, glass drains, bad after treatment, etc. Opposed raw surfaces are likely to adhere; gauze packing and early movement of the bowels do not prevent adhesion. There may be a localized traumatic peritonitis, as in simple cases of interval appendicitis. Medical treatment is of no avail in marked cases. It is necessary to reopen the abdomen, separate the adhesions, and cover raw surfaces in such a manner that the adhesions will not reform. Although humiliating to abdominal surgeons to admit it, there are no certain means of preventing the formation of adhesions in complicated cases. The introduction of foreign bodies, films, powders, etc., is foreign to the spirit of modern surgery. Early purgation is not always a prophylactic measure, and is often harmful. We can not obtain healthy peritoneal flaps when there are extensive raw surfaces. The future method of prevention of adhesions still remains to be devised.

DR. J. CLARENCE WEBSTER, Chicago: In dividing the tissues with a knife or scissors, the operator should take care to bury raw surfaces. The same procedure is demanded when adherent structures are separated, and, although it is impossible to carry this out perfectly in all cases, various maneuvers may be employed, in many instances calculated to improve the condition of the parts.

Acute Postoperative Dilatation of the Stomach

DR. JOHN OSBORNE POLAK, Brooklyn, N. Y.: Acute dilatation of the stomach as a postoperative complication occurred 8 times in 1,000 abdominal sections. There were 2 deaths in patients with low hemoglobin percentages and low red cell counts. All patients were operated on under general anesthesia; 6 had had septic processes before operation; 1 had previous gastroptosis. Vomiting began from 24 to 50 hours after operation. There was diffuse abdominal pain and thirst, with continuous and persistent regurgitant vomiting, without peritoneal irritation, which enabled one to make the diagnosis. The treatment consisted of lavage, starvation, the right latero prone position, with Murphy irrigation and nutrient enemata.

Ureteral Fistulas as Sequelæ of Pelvic Operations

DR. JOHN A. SAMPSON, Albany, N. Y., discussed certain important anatomic features of the ureters from the standpoint of ureteral fistulas. In the first place, he spoke of their relation to the other pelvic structures, especially to the parietal peritoneum, and to the uterus. He referred to the pelvic conditions in the operative treatment of which there is danger of injuring the ureter, as, for instance, extreme lateral displacement of the cervix; masses adherent to the parietal peritoneum covering the ureter; intraligamentary tumors; inflammatory exudates in the base of the broad ligament; tumors lateral to the ureter; cancer of the uterine cervix; injuries to the ureter which may result in fistulas, such as clamping, ligation, incision, failure of repair, and interference with blood supply. He classified ureteral fistulas, after which he discussed treatment and prophylaxis.

The Pathology of Ovarian Tumors

DR. THOMAS S. CULLEN, Baltimore, discussed under this head retention cysts, cystic ovaries, multilocular ovarian cysts, papillocystomas, carcinomas, dermoid tumors and teratomas.

Other Papers Read

"Indications for Cesarean Section in Placenta Prævia," by Dr. G. T. Harrison, New York; "Treatment of Extensive Cases of Uterine Prolapse and of Cystocele," by Dr. T. J. Watkins, Chicago; "Suprapubic Operation on the Pelvic Floor for Procidentia Uteri," by Dr. W. M. Polk, New York; "Conservatism in Surgery of the Pelvic Organs," by Dr. H. J. Boldt, New York; "Postoperative Peritoneal Adhesions," by Dr. George Gellhorn, St. Louis; "Mental Disturbances Following Abdominal Section," by Dr. Howard A. Kelly, Baltimore; "True Ileus," by Dr. William H. Wathen, Louisville, Ky.

The Banquet

A notable and culminating feature of this meeting, which was one of the most successful in the history of the society, was the dinner in commemoration of the first ovariotomy by Dr. Ephraim McDowell, given at the Waldorf-Astoria by the New York and Brooklyn fellows. Dr. J. Riddle Goffe acted as toastmaster. The speeches were not only instructive and scholarly, but valuable historical contributions.

The following toasts were responded to: "Ephraim McDowell, the First Ovariotomist," by Dr. Lewis S. McMurtry, Louisville, Ky.; "Mrs. Crawford: A Type of American Womanhood," by Dr. Edward P. Davis, Philadelphia; "McDowell's Successors in America," by Dr. Howard A. Kelly, Baltimore; "McDowell's Successors in the British Empire," by Dr. Herbert R. Spencer, London, England; "McDowell's Successors in France," by Prof. Samuel Pozzi, Paris, France; "McDowell's Successors in Germany," by Prof. Hofmeier, Wurzburg, Germany.

DR. E. C. DUDLEY, Chicago, was one of the after-dinner speakers, and exhibited several lantern slides, one of them showing the home of McDowell, another which was supposed to represent McDowell performing the first ovariotomy; also slides of Mrs. Crawford both before and after the operation. He closed his speech with the following terse statements concerning the personality and achievements of McDowell:

> We have seen him, a product of the heroic blood of Scotland, tempered by the dramatic and imaginative spirit of the Celt
>
> Intensified by contact with the adventurous cavalier colonist in Virginia.
>
> A son of the central figure among the hardy pioneer soldiers and statesmen of the eighteenth century on the "dark and bloody ground of Kentucky."
>
> Reared in the historic village of Danville under the character building influence of this wonderful people, who knew how to join to the inspiration and freedom of the frontier what was most vital in the older education and civilization of the world
>
> A youth whose ardent temperament, intellect, magnetism and refinement gave great promise
>
> A pupil of Dr. Humphreys in Virginia.
>
> Associating with cultivated physicians and surgeons of his own and other countries in the University of Edinburgh
>
> Attending the lectures of John Bell, a man of high intellectual endowment, an eloquent, forceful teacher, a bold and dashing operator, then in the zenith of his power.
>
> Drawing from this source inspiration, original thought, confidence, boldness and judgment.
>
> Returning to Danville to practice his profession
>
> Marrying the daughter of the first governor of Kentucky.
>
> The personal and intimate friend of two presidents of the Republic.
>
> Receiving unqualified recognition as the foremost surgeon in the Mississippi Valley.
>
> Patiently waiting fourteen years until 1809 for an opportunity to break new surgical ground by the operation which has immortalized his name
>
> Subsequently repeating the operation many times with results not materially surpassed by his successors, until the period of aseptic surgery, seventy years later
>
> Too intelligent to be unconscious of the value of his service to mankind.

Yet with singular restraint delaying publication for seven years until final results could be *measured*.

Undismayed by a storm of almost universal vituperation and calumny from the surgical world whose sensibilities he had shocked by being in advance of his time.

In America denounced as a cracked-brained backwoods adventurer.

In England impaled on the horns of a dilemma, whether to be deemed an irresponsible fanatic or a fit subject for the executioner.

In France, with greater appearance of politeness but equal virulence, held up as the grand exponent of American audacity.

Answering a critic with the modest statement that he had tried to describe the operation so that an intelligent anatomist could understand it, and then letting time and conscience bring another critic to his knees with a prayer for "forgiveness" before "Almighty God and Dr. McDowell."

In the prime of life, at the summit of usefulness closing a mortal career which had shed luster upon his age and his country.

Classed with Jenner and Franklin, Washington and Lincoln, Marion Sims and Emmet.

The unique figure in a brilliant group of Kentuckians.

Officers Elected

The following officers were elected for the ensuing year: President, Dr. Edward P. Davis, Philadelphia; first vice-president, Dr. Seth C. Gordon, Portland, Me.; second vice-president, Dr. Edward Reynolds, Boston; secretary, Dr. LeRoy Broun, New York; treasurer, Dr. J. Wesley Bovee, Washington, D. C.

Washington, D. C., was selected as the place of next meeting, in conjunction with the Congress of American Physicians and Surgeons, 1910.

Medicolegal

What Constitutes a "Free Hospital"

The Supreme Judicial Court of Maine holds, in Webber Hospital Association vs. McKenzie, where provision was made in a will for the maintenance of a free hospital, that the word "free" was not used in the sense of without compensation from any one receiving its benefits. Such a hospital is practically unknown. Income may be received from such as are able to pay, and yet the hospital is free. The word was used in its equally well-known meaning as defined by Webster, "thrown open or made accessible to all." This is also a well recognized definition of the word in law: "Open to all—public." It was therefore a public hospital "where the unfortunate may receive good care and skilful treatment" that the testator had in mind. No charge should be made to those unable to pay, but this would not prohibit receiving compensation from those who were able. It was to be open to all. The rich should not be turned away because of their wealth nor the poor because of their poverty. It should be free in the broadest sense.

Again, the court says that this will, while providing that the income of the fund in question should be used for the maintenance of a hospital, did not prohibit aid from other sources, but, on the contrary, suggested such assistance. Patients might contribute from their means. The state might make generous appropriations, benevolent friends might unite in guaranteeing an endowment. All these things might be done, and they would promote rather than thwart the testator's intent. Without their aid the work of the hospital might be limited; with it might be largely extended.

Substitution of Urine and Answer as to Abortions by Applicant for Insurance

The Court of Civil Appeals of Texas says, in Mutual Life Insurance Company vs. Crenshaw, that there was testimony before the jury which tended to show that in the personal examination of the applicant for the policy of life insurance in question she gave to the examining physician another person's urine as her own. This would have amounted to a false representation on the part of the applicant in the procurement of the policy, and, like any other false representation, all that was necessary to constitute it a defense was that it operated materially to induce the insurance. The testimony of the physician, which constituted all the testimony on the subject, was that had he or the company known of the fact it would for that reason not have issued the policy. The evidence amounted to this: That the deception practiced on him, if there was a substitution, contributed to the issuing of the policy, because, if he had known of the substitution, that fact alone would have defeated the application. This showed the materiality of the substitution in such a manner that it was clear the court should have assumed the fact of its materiality, and not submitted the question of its materiality to the jury.

But the question, "Have you suffered abortions or serious troubles in labor?" which was answered by applicant "No," the court holds was not shown to have been falsely answered by testimony that about thirty days before the issuance of the policy the applicant had suffered an abortion. It says that the question did not call for an answer in reference to a single abortion. The applicant, so far as the evidence showed, had not suffered abortions; hence her answer was true, considering the terms of the question. Being true, there was no issue to submit which involved the falsity of the answer. The terms of a policy which tend to forfeit it are not favored, and are strictly construed, and, if on any reasonable theory the answer may be taken as true, that construction will be placed on it.

No Allowance for Autopsies Held to Determine Diseases Causing Death

The Supreme Court of Indiana says that the case of Sandy vs. Board of Commissioners of Morgan county was brought by a physician to recover $25 for holding an autopsy on the body of a child on the order of and under the direction of the coroner of Morgan county. Some of the defenses were that the child at the time of and for days before its death was under the care of physicians, and its death was not sudden or unexpected, and it was not supposed to have come to its death by violence or casualty; that at the time of the death of the child the plaintiff was one of the attending physicians and had the child under his immediate care; that its death was not supposed to have been caused by violence or casualty, but from diphtheria; that no crime was supposed to have been committed, and that the autopsy was not held for the purpose of investigating or discovering whether a crime had been committed, but for the purpose of settling a controversy between the plaintiff and another attending physician as to the nature of the disease from which the child died, and was without authority of law.

The evidence in this case showed that the child had been visited by the plaintiff on Saturday morning without a discovery of the malady with which it was afflicted, diphtheria of the larynx, a disease difficult of diagnosis; that the child had been in and out of the house during most of the day preceding, and died suddenly early Sunday morning after having taken a drink of cold water which it arose from its bed and crossed the room to obtain; that it had been under the constant attention of its parents, both of whom were present at the time of its death, and there was not the slightest suspicion of death from casualty or violence; on the other hand, a physician called immediately after death at once suspected death from the true cause from the symptoms and attending circumstances. It was simply a case of death from a natural cause, somewhat difficult of diagnosis.

The plaintiff sought to justify his claim for holding an autopsy as a legal one on the ground that physicians were required to report to the secretary of the boards of health all deaths and the causes thereof; that no undertaker should bury a human body without a certificate of a physician as to the cause of death; and that the plaintiff refused to give a certificate of the cause of death because he did not know the cause, and hence the coroner was justified in holding an autopsy in order that a death certificate might issue. It might, quite as seriously, and with as much reason, be insisted in any case of baffled medical science, that an autopsy must be held in order that a death certificate might issue.

The statute with respect to restrictions of funerals in case of death from contagious disease was also relied on. Such statutes must be read in the light of the purpose of their enactment. The statute with respect to inquests and autopsies has from the earliest times been an arm of the criminal law, both to punish those guilty and protect those who are innocent of crime. The other statutes as to the certification of causes of death, etc., are for statistical purposes, and health regulations in the interest of the public health purely police regulations.

If there were nothing here but the fact of the autopsy being ordered, this court would be bound to presume that it was under a proper case for it. But here was the evidence, and with the requirement that the coroner, in order to justify an autopsy, must have a reasonable suspicion of violence or casualty, the question became one of the weight of the evidence, and there was evidence to support a finding in favor of the defendant board.

The Indiana statute itself defines the cases in which autopsies may be legally held as cases where inquests are legally held. It restricts the right or obligation to cases where death is supposed to have come by violence or casualty, and as a part of an inquest, and, while the statute ought not to be so strictly construed as to defeat its purpose, yet it must still be remembered that it is not to be extended beyond its evident purpose, and that a coroner is not the sole arbiter of the necessity; for, if this were so, a broad field would be opened for more conjecture as to the cause of death in any case where medical science may be baffled, and there would remain no such statutory direction or authority as we have, but a general power to direct autopsies, without any opportunity for review, by the courts. The action of a coroner would foreclose the question and we have seen that he has no such power.

Being a ministerial power, it must be exercised within some reasonable presumption that the death has resulted from violence or casualty. It can not be justified in the interest of science, for no such authority is given except as to prescribed persons, and there are distinct rights as to the dead. Otherwise the sacred dead might be the subjects of the surgeon's knife in any case in which the coroner might see fit, and at the public expense. His authority must be reasonably, and not arbitrarily, exercised. Being in the exercise of a wholly ministerial duty, acting under purely statutory authority, which is in itself the interpreter, and measurer of his powers, the plaintiff was charged with notice of his limitations; for, if this were not so, a coroner might by indirection do what he could not do by direction.

The rule is not changed by the fact that coroners are by statute given the power to direct autopsies. The power itself is limited to the specified conditions which invoke it, and the conditions are open to review by the courts. A reasonable supposition that a death occurs from violence or casualty is as necessary to confer jurisdiction to hold an inquest or hold an autopsy as that the body be found in his county.

The Latest Views of Cases of Alleged Injury to Nervous System and of the Testimony of Physicians Relative to Same

The Supreme Court of Minnesota holds, in the personal injury case of Johnson vs. Great Northern Railway Co., that when damages are sought to be recovered for injuries to the nervous system, alleged to have been caused by actionable negligence, the utmost circumspection must be exercised to avoid the injustice which is likely to result from the denial of substantial compensation for real injuries and in the award of damage in cases of honest mistake or of cunning fraud.

The value to be attached to the testimony of physicians concerning alleged nervous disorders is to be determined, among other things, by the extent and character of the examination actually made by the testifying physicians, generally as to the plaintiff's physiological condition, and especially as to the condition of his nervous system.

That subtle nervous disorders may exist, and that, as our civilization produces less hardy and more highly organized individuals, they tend to occur more frequently, and to result more seriously, the court says, is obviously true.

It is equally familiar that even the more highly trained specialists can not readily distinguish some forms of actual nervous derangement from analogous physiological conditions which may have been falsely described through ignorance, or which may have resulted from conscious malingering. By a stronger reason, in such cases, the testimony of even a reputable practitioner is to be weighed with especial care.

The difficulty is, of course, greater where the condition occurs without a lesion—i. e., in cases of traumatic neurosis or traumatic neurasthenia—than where external force has produced a morbid change in the functions or texture of the tissues or organs. Well-considered decisions have gone so far as to hold that no considerable verdict will be allowed to stand on proof of subjective symptoms only, not only because the existence and extent of such subjective condition depends on the veracity of the patient affected, as he must be interested in the outcome of the litigation, but also because of the frequent miracles of recovery after application of "a greenback plaster."

None the less the abnormal conditions may be real and result seriously. Much testimony must be admitted, as a matter of course, which is subject to the same objection as to interest. Many verdicts are of unquestionable validity which are subject to the same criticism of their probable substantial injustice. It is clear that wrong is likely to result from denial of substantial damages for real injury, and also from their award in cases of honest mistake or cunning fraud.

It is certain that, where nervous derangement due to an accident is alleged, courts are called on to exercise the utmost circumspection. They would pervert their functions if they undertook to prescribe how physicians should proceed, or to dogmatically determine what significance should be attached to the results of their examination. The law, which is fixed, is not authority on physiological science, which is progressive. Judges are not physicians. The courts, as Lord Bowne pointed out, are not the proper places for conducting experiments in inductive science. Indeed, the primary purpose, to subserve which expert evidence on the immediate subject is received, is to advise courts of the results of such questions asked of nature and the conclusions of scientific men prevailing at the time of the trial. Accordingly, as opinions of physicians change, the legal effect of facts testified to must also change.

A few elementary principles of diagnostic neurology are now so generally recognized by scientific authority that they should ordinarily be applied. The examination of the patient should be systematic and thorough, and extend to the anatomy of the individual to the extent circumstances demand, to the physiological conditions generally of his person, more specifically his organs likely to be affected, and especially of his deeper and superficial reflexes. The authorities insist that by such examination, an expert, qualified by learning and experience, is able to determine the true condition of the person examined beyond his power of successful simulation or misrepresentation, and to expose the ignorance, mistake or fraud of opposing experts. There may be cases so clear that conformity with so exhaustive tests may not be necessary, but doubtful instances must be scrutinized with all known care and tried by all available means.

The plaintiff in this case, by the sudden movement of a car, was thrown to the ground, and in falling struck his back and left side. He called two physicians. Both found a lameness or tenderness of the back. But neither of the plaintiff's two experts appeared to have had the necessary knowledge and experience of a specialist in nervous diseases. Indeed, one of them frankly admitted that "he did not claim to be an expert on nervous diseases," and was called as a general practitioner, who as such had attended the patient. Neither testified to have made an adequate examination on which to rest the conclusions of any serious nervous trouble. The diagnosis of neither purported to be based on investigation into the normality of the plaintiff's physical condition generally, or of his organs or of his deeper or superficial reflexes. The examination was not systematic. Indeed, it was extremely limited and cursory. It amounted at most to a partial investigation into the loss of sensation in the legs. The most significant item was that at places "the hair had turned white." It was frankly admitted, however, that this could not have been connected with the accident.

On the other hand, the two physicians called by the defendant testified that they had made a thorough and scientific examination of the plaintiff's person. They examined "his eyes, his feet, and his legs, . . . the lungs, heart, abdomen, his back, his nervous sensations, or knee jerks, and in fact everything connected with the general examination." The urine on analysis was found normal. They concluded that the plaintiff was not and had not been suffering "from any trouble with his nervous system, or with his spinal column;" that "they could find nothing the matter with him as a result of any injury he had received" except tenderness and soreness in the muscles of the back, from which his recovery would be comparatively quick. The record itself demonstrated the competency of these physicians as experts. It is evident, the court thinks, that the expert testimony necessitated the belief that the plaintiff was not seriously injured.

The plaintiff's testimony and conduct must be considered, not so much in the light of the plaintiff's interest in the outcome of the litigation, which was naturally for a jury to weigh, as of the plaintiff's inevitable lack of technical knowledge necessary to the correct estimate of his physical condition and of the cause of any deviation from the normal.

Lastly, the court deems it impossible, under such circumstances, to sustain a verdict of over $1,000 for the injury that was actually shown.

Current Medical Literature

AMERICAN

Titles marked with an asterisk(*) are abstracted below.

Boston Medical and Surgical Journal

April 29

1 Intermittent Hydronephrosis. D. F. Jones, Boston.
2 *Treponemata (Spirochætæ) in Syphilitic Aortitis; Five Cases, One with Aneurism. J. H. Wright and O. Richardson, Boston.
3 *Treatment of Obstruction of the Lachrymal Duct. J. C. Berry, Worcester, Mass.

2. **Treponema in Syphilitic Aortitis.**—Wright and Richardson give the essential points in the histories and gross anatomic appearances of the lesions in five cases. The aortitis presents certain definite characters. The regions involved are mainly those of the first portion and the arch. Beyond this area the lesions are less marked and fewer, till they become indistinguishable from those of ordinary arteriosclerosis. Microscopic examination shows that the lesions in all the cases are essentially the same, and like those characteristic of syphilitic aortitis. The most striking feature is the extensive transformation of the media and intima into fibrous tissue, and the degeneration and necrosis of this tissue. In all the cases, sections prepared by Levaditi's first published method showed treponemata, identical in morphology with *Treponema pallidum*. They were found practically only in a degenerative and necrotic area. The finding of the treponemata in an area of primary necrosis in the media, as well as in association with the necrosis in the fibrous tissue, seems to justify the belief that the micro-organisms are the cause of the necrosis by their local action on the tissue, and that they are to be regarded as the cause of the whole process, although the possibility that they are merely secondary invaders can not be denied. Their numbers and distribution in the lesions would suggest that they rapidly multiply at a given point, produce necrosis and then degenerate and disappear.

3. **Obstruction of the Lachrymal Duct.**—Berry summarizes his experience as follows:

1. IN INFANTS

1. Ordinary cases of dacryocystitis in infants require no treatment other than nasal cleanliness, boracic acid collyria and slight pressure over the sac.
2. More persistent cases may require nasal aspiration or possibly the passage of the lachrymal probe.
3. Obstruction is sometimes due to membranous closure of the nasal end of the canal.
4. Intranasal inspection is always prudent and at times necessary when probing the duct.
5. The seton is a remedial measure of great promise in certain rebellious cases.

2. IN ADULTS

1. The ideal treatment is by gradual dilatation, avoiding violence to the membrane of the canal.
2. If this proves unsuccessful, then division of the stricture with rapid and full dilatation is necessary.
3. Dilatation beyond 2 mm. (Bowman's probe No. 8) is seldom necessary. Forced dilatation to 4 mm. (Theobold No. 16) exposes the eye to nasal contamination and lessens the propulsive power of the sac.
4. The leaden style can be employed to advantage between treatments, reducing the frequency of probing and favoring absorption of hypertrophied tissue by continuous pressure.
5. Acute cases of inflammation of the sac can be aborted if seen early, the treatment being to wash out the sac, inject argyrol and follow with hot stupes of lead and laudanum, general antiphlogistic treatment being observed.
6. Following phlegmon, the passage of the probe should be delayed until swelling and induration subside.

Medical Record, New York

May 1

4 *A Catalytic Theory of Infection and Immunity. J. W. McLaughlin, Austin, Tex.
5 *Cerebral Lobules. W. Wood, New York.
6 *Ureteral Calculi. A. V. Moschowitz, New York.
7 Mastoiditis Followed by Infected Sinus Thrombosis in a Young Pregnant Patient. M. D. Lederman, New York.
8 Conservative Treatment of Some Traumatic Injuries of the Extremities. W. T. Dannreuther, New York.
9 Further Research Regarding the Phosphatic Index or the Pulse of the Nervous System. J. H. Dowd, Buffalo, N. Y.
10 Fluoroscopy and Radiography. A. Judd, New York.

4. **Infection and Immunity.**—McLaughlin says that it is conceded that artificial or acquired immunity resulting from an attack of the disease immunized against or from inoculations of the pathogenic agents of the disease is a condition of the organism caused by specific antibodies, or by immunizing tissue changes of the body. While a knowledge of the nature and action of pathogenic agents, the origin and nature of specific antibodies, and the character of changes produced in the body tissues by toxins is clearly necessary to a rational knowledge of pathogenesis and immunization, our present knowledge is insufficiently definite therefor. McLaughlin is forced to conclude that the "internal forces of matter" must consist of more than molecular heat energy, and that behind molecules and independent of the transformations of heat energy there are unknown forces—properties of matter, which determine mechanical combinations. He reviews the present conception of molecular structure and molecular energy, which give us the complete molecule as it is described in text-books. Taking up the study at this point, where it has been abandoned, McLaughlin says that the addition of two new features will make it apparent that molecular energy is derived from molecular structure, and that the changes of matter in chemical reactions result from the interaction of atomic and molecular forces in securing equilibrium in end products: The first is the presence of universal ether surrounding atoms in the molecules and accurately reproducing the vibrations as ether waves. The second is an adjustment of conflicting ether waves in the molecules by "interference," into waves of energy whose periods coincide in crest and trough. "The energy of a molecule is an exact reflex of its chemical and physical structure." He then discusses the conditions under which molecular energy becomes catalytic energy. A catalyst is not a definite chemical substance, but a substance possessing a definite physical structure. Toxins and pathogens are to be classed as catalytic agents, as well as ferments and enzymes are. Specificity of action and the production of specific antibodies are features which definitely characterize catalytic reactions. The specific selective action of a ferment for the substrate is coincident in crest and trough of the wave periods of the two substances. McLaughlin's argument leads him to the conclusion that "pathogenesis is a catalytic reaction in which the pathogen or toxin is the catalyst, a group of albumin molecules is the substrate, and a specific antibody the end product. In this process the albumin molecules of the substrate are dissociated and transformed into a toxalbumin, and this is the essential cause of the disease produced, the type of which is determined by the character of the toxalbumin, and the character of the toxalbumin is determined by the species of pathogen and the vulnerable substrate engaged in the reaction." An antibody—say an antigen to a pathogen or an antitoxin to a toxin—combines with, neutralizes, and thus make harmless, the pathogenic agents; but since such combinations are bodies foreign to the organism, they are soon disposed of, and the immunity produced by them is transient in character. On the other hand, immunity produced by the destruction of the substrate is lasting, and will remain until the substrate is restored.

5. **Cerebral Lobules.**—Wood says that cerebral localization properly deals with centers. If the cerebral segments are one by one examined in detail, it will be found that they lend

themselves wonderfully well to the theory of sensory and motory centers, and that these sensory and *motory* centers are definitely formed eminences or lobules, each with a function, and that they tend to be regular in order and to lie along definite lines. On this view he describes and figures a simple and practical method of mapping out the brain and reading these psychologic centers or mind eminences.

6. **Personal Observation of Ureteral Calculi.**—Moschcowitz says that in addition to the three points at which the ureter is described in the text-books as being usually narrowed, there is a fourth point, between the vesical end of the ureter and the point where it crosses the common iliac artery, perhaps a trifle nearer to the former. It is due to a dense, sharp, fascial band passing horizontally inward from the lateral pelvic wall to the median line. He discusses the symptomatology. Cystoscopic inspection of the bladder he regards as of comparatively limited value in the diagnosis, but an *x*-ray examination is an absolute necessity in every case. While every calculus remaining indefinitely in the ureter must ultimately lead to infection of the kidney, still Moschcowitz makes it a rule not to advise operation as soon as diagnosis is made, but to observe the case for a short time and give Nature a chance to propel the stone. He cites cases to prove the judiciousness of this practice. Morphin and hot applications are the measures indicated. He has no experience with the injection of lubricants into the ureter.

New York Medical Journal

May 1

11 The Doctor and the Nurse. C. P. Noble, Philadelphia.
12 The Toxic Secondaries of Chronic Tonsillar Disease. A. R. Elliott, Chicago.
13 *Treatment of Appendicitis. B. Robinson, New York.
14 Diagnosis and Differential Diagnosis of Appendicitis. H. Fischer, New York.
15 *Appendicitis Complicating Pregnancy. C. O. Cooke, Providence, R. I.
16 Extrauterine [illegible] [illegible] Warren, Sioux City, Iowa
17 *Common Erro [illegible] of the Urethra and Bladder. J. D. Pede [illegible]
18 *Bedside Clinic Summary of the Treatment of Acute Rheumatism at the Indianapolis City Hospital. S. E. Earp, Indianapolis.
19 Hypernephroma of the Kidney. W. L. Duffield, Brooklyn, N. Y.
20 *Poisons: Especially Potassium Permanganate. J. C. Attix, Philadelphia.

13. **Appendicitis.**—Robinson states that it is difficult at times, not to say impossible, to distinguish accurately and positively, between appendicitis and colitis. In some cases, McBurney's point, rigidity, blood count, symptomatic antecedents, are similar. When all these are identical one or other disease may exist alone. It is frequently the case here, as elsewhere, that two diseases, so far as the mere organ is concerned, may exist together just as is found elsewhere, notably, in uterus and ovaries; in larynx and trachea. Admitting the truth of the foregoing to be wise and prudent, we should treat the patient medically, in what seems the best way to accomplish a cure. This treatment should be:

1. Rest in bed, which means little or no voluntary movement while pains are acute, temperature elevated, and other general symptoms threatening or grave.
2. Ice bag, or preferably hot water bag, or poultices, or stupes with hot water and oil of turpentine and soap liniment; flannel covered, or not, with oil silk or rubber tissue.
3. Laxative enema with castor oil and oxgall, sometimes a little glycerin being added. Flaxseed tea should preferably be the menstruum of the enema.
4. A moderate amount of codein every hour or two, by mouth, if pains seem to require it, from 1/20 to 1/10 or 1/5 grain.
5. In rare instances only are hypodermic injections of morphin to be given, and then only for excessive pain.

15. **Appendicitis During Pregnancy.**—Cook emphasizes:

1. Appendicitis should be suspected in all cases of right-sided pain ocurring during pregnancy.
2. Inasmuch as constipation is an important factor in the etiology of the disease, the physician should see that the bowels are kept free throughout the pregnant state.
3. The symptoms are often misleading.
4. The diagnosis is not easy.
5. The prognosis is good in the acute catarrhal and chronic recurrent types, but extremely grave in the gangrenous, perforative and abscess type.
6. The treatment is operation in every case as soon as the diagnosis is established. In cases of doubt operation is safer than waiting.
7. The mortality of appendicitis complicating pregnancy is the mortality of delay.
8. Appendicitis during pregnancy is more dangerous than in the non-pregnant state
9. The true prophylaxis in a child-bearing woman who has had a well-marked attack of appendicitis is an interval operation.
10. The possibility of appendicitis after labor in predisposed patients should be borne in mind in order not to mistake such for puerperal sepsis.
11. In the perforative cases with general diffuse suppurative peritonitis, occurring at the end of pregnancy *accouchement forcé* is indicated, followed by incision and drainage of the peritoneal cavity.

17. Abstracted in The Journal, July 11, 1908, p. 160.

18. **Acute Rheumatism.**—Earp reports favorable results in twelve cases of acute rheumatism under the following routine treatment: The use of calomel is followed by Dorsey's magnesia mixture until the bowels are freely open, then they are kept so. The patients should drink plenty of water. Thirty grains of sodium salicylate should be given each three hours until pain is relieved or there are unpleasant head symptoms. The dose is then decreased to twenty grains, and when the joints can be used freely without pain or stiffness the dose is again decreased to fifteen grains four times a day for one week. When the patient considers himself well, ten grains are given three times a day for two weeks. Oil of wintergreen was applied to the joints twice a day, and they were dressed in cotton and oiled silk or rubber sheeting. There has been some slight deviation from this rule to meet special indications in individual cases.

20. **Potassium Permanganate Poisoning.**—Attix briefly discusses the subject and definition of poisons and poisoning generally and reports two cases of poisoning by potassium permanganate of which no case is yet recorded in any text-book on toxicology. Antidotes are, weak ferrous sulphate, sodium sulphite, sodium hyposulphite, oxalic acid—which should never be used unless the amount of permanganate taken is definitely known and the exact molecular proportion of the acid can be given—and sulphurous acid, which should be used if it can be obtained, because (1) potassium permanganate is alkaline—sulphurous acid is, of course, acid; (2) potassium permanganate is an oxidizing agent—sulphurous acid is a powerful reducing agent; (3) sulphurous acid is not poisonous and an excess will do no harm and it acts very rapidly.

Surgery, Gynecology and Obstetrics, Chicago

April

21 *Removal of the Gall Bladder. A. MacLaren and H. P. Ritchie, St. Paul.
22 **Operative Treatment of Simple Fractures.* W. A. Lane, London, Eng.
23 Gunshot Wounds of the Abdomen. C. Graham, Henderson, Ky.
24 *Treatment of Infected and Complicated Cases of Labor by *Abdominal Section.* E. P. Davis, Philadelphia.
25 *Chromocystoscopy in Functional Renal [illegible] Based on Employment of Indigocarmin. B. A. [illegible]
26 Post-Traumatic Sarcoma of the Skull. [illegible] Wis.
27 Adenomata of Descending Colon, Sigmoid and Rectum. A. Samuels, Baltimore.
28 Value of Enterostomy in Intestinal Obstruction. J. P. Lord, Omaha, Neb
29 Uterosacral Ligaments. D. H. Craig, Boston.
30 Shock, Its Relation to Operations of Emergency. W. H. Allport, Chicago.
31 Evolution of the Military Surgeon. N. Senn, *Chicago.*
32 Dermoid Cyst of the Kidney. W. S. Goldsmith, Atlanta, Ga.
33 Present Status of Ethyl Chlorid as a General Anesthetic. W. Webster, Winnipeg, Canada.
34 Unique Accident to a Meckel's Diverticulum. B. Van Sweringen, Fort Wayne, Ind.
35 Cases of Primary Tuberculosis of the Appendix. F. H. Jackson, Houlton, Me.
36 Two Operations for Total Destruction of the Gall Ducts. E. E. Lanphear, St. Louis.
37 Acetonuria, with Coma, Apparently *Cured by* Intravenous Transfusion of *Bicarbonate of* Soda Solution. B. F. Van Meter, Lexington, Ky.
38 Intestinal Obstruction Due to Round Worms. B. F. Van Meter, Lexington, Ky.
39 Simple Operation for Complete Removal of Tonsils with Notes on 800 Cases. G. E. Waugh, London.
40 New Instrument for Opening the Skull. J. M. Neff, Chicago
41 Operative Treatment of an Irreducible Fracture of Surgical Neck of Humerus. J. H. Jacobson, Toledo, O.
42 The Instrument Tree. S. E. Newman, St. Louis.
43 *Treatment of Uterine Retrodisplacements. J. M. Baldy, Philadelphia, Pa.

21. **Cholecystectomy.**—MacLaren and Ritchie analyze 21 cases of cholecystectomy, with reference to diagnosis, operative measures, and results, and present the cases in tabular form. MacLaren discusses the operation. Incidentally he records an experience which leads him to the conclusion that the removal of gallstones through a stab is seldom justifiable. His principal object in writing, he states, is to impress the young man with the fact that the mortality of gall-bladder opera-

tions will not be "2 per cent." in his hands until he has done several hundred operations. He enumerates the following as conditions under which we should not perform cholecystectomy:

1. In a cystic gall bladder, when from the appearance and history it is certain that the obstruction of the cystic duct is recent, even though the gall bladder does not contain bile.
2. In calcareous disease or gangrene of a small portion of the fundus of the gall bladder.
3. In moderate sized perforations or wounds.
4. In moderately adherent and "somewhat" contracted gall bladders.
5. In the presence of pancreatitis, especially if complicated with dilatation, stone, or other disease in the common duct.

22. **Fractures.**—Lane repeats his conclusions of 1904, that in fractures operative measures offer the patient the following advantages:

(a) They at once relieve the patient from the pain of any movement of the fragments on one another.
(b) They free him from the tension and discomfort due to the extensive extravasation of blood between and into the tissues.
(c) They shorten the duration of the period during which he is incapacitated from work, since union is practically by first intention, and, consequently, very rapid and perfect.
(d) Last, and by far the most important, they leave his skeletal mechanics in the condition in which they were before he sustained the injury.

Lane describes the technic and discusses the apparatus used. The article is abundantly illustrated with radiographs.

24. **Infected and Complicated Cases of Labor.**—Davis refers to cases of labor complicated by disproportion between mother and child, and in which, through neglect or bad treatment, the patient has become infected and sustained considerable laceration. The child is dying or dead, and the indication is to deliver the mother, thus saving her life. The intravaginal treatment of these cases is successful in a certain number. When the disproportion between mother and child is slight and laceration has not opened the peritoneal cavity, embryotomy offers a favorable prognosis; but when disproportion is marked and the mother seriously injured and infected, Davis believes that delivery by abdominal section, followed by the Porro operation will give the best results. He reports ten cases, in six of which the Porro operation was performed, and all of the patients recovered. By Porro operation he means that designed and performed by Porro, in which the stump is fastened extraperitoneally to the lower end of the abdominal incision, the greater part of it subsequently separating by sloughing. From a surgical standpoint, the operation is unsatisfactory, but in the class of cases described its results justify its performance.

25. **Chromocystoscopy in Functional Renal Diagnosis.**—Thomas says that in 90 per cent. of cases normal kidneys excrete indigocarmin in from 7 to 14 minutes after its injection intramuscularly; in only 10 per cent. is the excretion suppressed as long as 20 minutes. If the blue coloration appears later than 20 minutes after the injection the functional sufficiency of the kidney is probably impaired. If the excretion fails to appear at all the kidney is the seat of a grave pathologic process, provided the ureter is patulous. The intensity of the excretion (light blue or dark blue) depends on the concentration of the renal secretion and the individual excretory power of the organ. A surgically diseased kidney excretes the coloring matter less intensively than its sister organ, or not at all. The test is simple and by observation of the two ureteral orifices, differences between the two kidneys are readily and speedily noted.

43. **Uterine Retrodisplacements.**—Baldy says that the time will come when men will be just as much ashamed to speak and write of uterine retrodisplacement as a distinct disease, as they are at present so to speak of ascites as such. Occasionally cases occur, in which it would seem as though the displacement were the only thing which would explain the symptoms from which the woman suffered, and in which a replacement of the uterus cured the patient; but the more one sees of gynecologic practice, the fewer unexplainable cases come under observation, and the closer one is able to limit this list of exceptions. Retrodisplacements of the uterus, Baldy says, are mostly coincident with other lesions, and when such is the case the symptoms almost universally come from the associated disease. The treatment of retrodisplacements is, then, a misnomer; it should be the treatment of conditions in connection with which retrodisplacement of the uterus occurs as an incident. The displacement of the organ can be ignored and the result will be perfectly satisfactory. In the badly infected cases in which Ochsner uses his operation, similar to one formerly used by Baldy, of attaching the fundus to the abdominal wall, both ovaries being removed, Baldy almost without exception performs the amputation hysterectomy, and finds none of the objections or bad results which seem to worry Ochsner. He then describes his operation for use in those cases in which no disease can be found, and again in those in which the disease found has been dealt with by appropriate treatment, and it is found in addition desirable to bring a retrodisplaced fundus forward; for instance the ovaries and Fallopian tubes, or part of them, being left, the peritoneum of the pelvic walls back of the uterus and broad ligaments being denuded and bleeding, and where adhesions between them and the fundus would be apt to occur, if they were allowed again to come into contact, or when it is desirable to draw up prolapsed ovaries and Fallopian tubes. This operation has been peformed by himself and his assistants between 100 and 200 times. He knows of 20 or 30 pregnancies following its performance. In no case has there been the slightest irregularity, although a number of the women had had trouble in former pregnancies. It is not so easily performed as a ventrosuspension, but it requires no more skill than is possessed by any surgeon competent to open the abdomen.

Bulletin American Academy of Medicine, Easton, Pa.

April

44 What Constitutes a Liberal Education in the Twentieth Century? G. E. MacLean, Iowa City.
45 Idem T. McClelland, Galesburg, Ill.
46 Idem. C. F. Thwing, Cleveland, O.

Vermont Medical Monthly, Burlington

April

47 Sanatorium Treatment of Tuberculosis. H. D. Chadwick, Pittsford.
48 Valvular Lesions of the Heart. A. Morton, St. Albans.
49 Conservatism in Surgery. M. R. Crain, Rutland.

Kentucky Medical Journal, Bowling Green

April 1

50 Serotherapy. J. E. Wilson, Falmouth.
51 Best Methods for a County Society to Pursue in Order to Accomplish the Most Good. W. H. Witherspoon, Harrodsburg.
52 Endometritis, with Special Reference to Prophylaxis. T. C. Holloway, Lexington.
53 The Burro. S. Bailey, Searchlight, Nevada.
54 Croupous Pneumonia. J. W. Crenshaw, Versailles.
55 *Conservative Treatment of Chronic Middle-Ear Discharge from Standpoint of the Specialist and General Practitioner. H. Horn, Bonn, Germany.
56 General Therapeutics. J. A. Caldwell, Peach Grove.
57 Eclampsia. A. Dixon, Henderson.
58 Diagnosis and Treatment of Lobar Pneumonia. A. L Thompson, Nebo.
59 Anatomy of the Skull. C. G. Stevenson, Becknersville.
60 Gross Anatomy of the Brain and Spinal Cord. E. R. Bush, Winchester.
61 Physiologic Action of the Brain and Spinal Cord. G. F. Clark, Winchester.
62 Early Symptoms and Diagnosis of Cancer of the Rectum and Sigmoid. G. S. Hanes, Louisville.
63 Eclampsia. J. O. Moore, Mattie, Ky.

April 15

64 Practical Management of a Case of Typhoid. W. A. Jenkins, Louisville.
65 *Hydrotherapy as an Agent for Increasing Drug Absorption. C. Pope, Louisville.
66 Fractures of Skull with Report of a Case. R. L. Ireland, Louisville.

55. **Chronic Middle Ear Discharge.**—Horn discusses the questions:

1. What forms of purulent middle ear discharge can be successfully treated by way of the external ear and Eustachian tube?
2. What are the methods to be employed with the various classes?

He adds for those who are not specialists that in ear work it is far better to know what not to do than what to do. A radical operation is usually necessary when with the chronic discharge:

1. The mastoid process is also involved in the process.
2. The overlying soft tissues are swollen.
3. A subperiosteal abscess is present.
4. A fistulous opening or the scars of one are present.
5. An acute exacerbation appears with increased discharge of pus, spontaneous ear pain, tenderness on pressure and half-sided headache.
6. In spite of conservative local treatment, a constant factor is present.

7. Epidermis masses and granular débris are continually washed out during the treatment.

8. During the course of the treatment complications appear; facial paralysis, labyrinth diseases or intracranial complications.

Horn discards the so-called dry *treatment. At a recent* meeting of the German Otological Society every one was in favor of a preliminary antiseptic syringing followed by careful drying and insufflation of boric acid. He insists that it is the syringe and water that must be aseptic, and that the substances blown in have no influence on the end-result, unless it be an unfavorable one due to irritation. The treatment proposed by Löwenberg in 1870 has still an important place in the methods at Bonn. It consists of the use of 95 per cent. alcohol, especially when the mucous membrane of the ear is red, swollen and thickened. The alcohol may be poured into the ear, no powder should be inflated, but a strip of gauze or a pledget of cotton may be inserted in the ear. Horn cautions against treating an operative case conservatively or a conservative case operatively, and adds: "Educate your finger and the mirror to discover the *remains of* the adenoid that the other fellow overloked. Never forget that the Eustachian tube plays an important rôle in both the causation and treatment of middle-ear suppuration. A dirty syringe and a good result do not go together. Keep your powder dry—and see that it is finely powdered. If you are a general practitioner, do not touch an ear discharge coming from the attic. Do not waste time on experiments, the great triumvirate is enough—boric acid, alcohol and the intratympanic tubes."

65. **Hydrotherapy to Increase Drug Absorption.**—Pope says that, tersely stated, we may say that under hot and cold water applications, we can expect greater absorption of oxygen and elimination of carbon dioxid; increased quantity and better quality of bodily glandular juices; destruction of waste material, rendering toxins innocuous; the rejuvenation and cleansing of tissue of such a nature as, in a physiologic sense, to cause the individual within his tissues to be born again; in which the medicament used may play its integral part.

New York State Journal of Medicine, New York

April

67 Further Observations on Prostatectomy Based on One Hundred Cases. J. B. Squier, New York.
68 *Suppurative Otitis Media—Etiology and Pathology. J. E. Sheppard, Brooklyn.
69 *Modern Methods of Non-Operative Treatment in Suppurative Otitis Media. E. P. Fowler, New York.
70 *Indications for and Results of Operative Treatment, Including the Simple and Radical Mastoid Operation. W. C. Phillips, New York.
71 Purulent Diseases of the Middle Ear, the Treatment of Meningeal, Sinus and Labyrinthine Complications. S. M. Smith, Philadelphia.
72 *Meller's Operation for Removal of the Tear Sac. A. E. Davis.
73 Treatment of Eclampsia. W. L. Wallace, Syracuse, N. Y.
74 *Diagnosis of Ovarian Dermoid Cysts. J. C. MacEvitt, Brooklyn.
75 Unusual Cases of Venous Thrombosis. H. W. Johnson, Hudson.
76 Infectious Phlyctenular Kerato-Conjunctivitis. J. S. Kirkendall, Ithaca.
77 The Galvanocautery as a Factor in Peritonsillar Abscess. I. W. Voorhees, New York.
78 *Pokeberry Poisoning. F. W. Lester, Seneca Falls.

68, 69, 70. Abstracted in The Journal, Feb. 20, 1909, p. 654.

72. Abstracted in The Journal, Feb. 6, p. 496.

74. **Ovarian Dermoid Cysts.**—MacEvitt reports two cases which combat the theory of a uniform progressive development, and on the contrary, demonstrate at times a remarkably rapid growth. While this symptom has no great weight from a diagnostic standpoint, MacEvitt asks whether, when we have joined thereto fever, pain, vomiting, and free fluid, we are not justified in adding it to the symptomatology of ovarian dermoid. It is his belief that dermoid cysts have no more malignant influence on their surroundings than any other peritoneum-covered growth. He advances the theory that it is only after inflammatory degeneration of their sac, when perforation ensues, permitting the escape of their acrid irritating contents that a localized peritonitis is developed, followed by its train of symptoms. The frequently given diagnostic point of the tumor being anterior to the uterus is likewise unreliable. In his case the location was on either side. He concludes that even with the additional symptoms which he has been able to record—(1) occasional very rapid development, (2) vomiting after the onset of pain, (3) aggravation of pain in the tumor for a few days prior to the menstrual epoch, (4) unreliability of Kuster's sign—position of the tumor anterior to uterus, (5) irregularity of outline, (6) abdominal free fluid—the diagnosis of ovarian dermoids can never be positive; at the most it is inferential.

78. **Pokeberry Poisoning.**—Lester records the case of a boy, 12 years of age, whom he found as completely relaxed in his muscular system as though under full anesthesia. One could have tied him in a knot. He was breathing very shallowly and quietly, so that one could hardly detect any respiratory sounds or motions unless one approached to within a foot of the patient. The pulse was soft, full and slow, about 60, regular and not the pulse of collapse. The boy salivated freely from his mouth, there being a constant raising of thick, frothy saliva. His reflexes were gone, the eye bearing the touch of finger without any lid contraction. In the absence of any history of poisoning, Lester administered stimulants, and with the use of warm water obtained free emesis; the vomitus determined the nature of the patient's seizure, being largely composed of the pokeberries. The use of liberal doses of castor oil at short intervals was persisted in for some hours, the patient becoming gradually better, until consciousness was regained nine and one-half hours after the initial attack. The whole picture was one of motor relaxation. There was even evidence of this in the widely open pupil, hanging jaw, tongue settled back in the pharynx, and inability to swallow, for an hour. Yawning and stretching were evident as the patient became better, but no sweating of body or tremor was present.

Illinois Medical Journal, Springfield

April

79 *Cutaneous Manifestations of Syphilis. J. N. Hyde, Chicago.
80 *Serodiagnosis of Syphilis and Its Clinical Value. W. J. Butler, Chicago.
81 Value of the Spirochete in Diagnosis of Syphilis, with Special Reference to the Primary Lesion. B. C. Corbus, Chicago.
82 *Congenital Syphilis. I. A. Abt, Chicago.
83 *Laws of Heredity. W. E. Castle, Cambridge, Mass.
84 Inheritance in the Evening Primrose. R. R. Gates, Chicago.
85 *Light Thrown on Eugenics by Experiences of Animal Breeding. E. Davenport, Urbana.
86 Reappearance of the Once Common and Fatal Milk Sickness, or "Milk-Sick," with Successful Rational Treatment Deduced from Clinical Findings. W. E. Walsh, Morris.
87 *The Sanatorium—Its Influence and Value. J. W. Pettit, Ottawa.
88 *How Shall we Apply the New Antituberculosis Law? Resources not Available. E. J. Brown, Decatur.
89 *The Tuberculosis Dispensary as it May be Established under the New Law. E. A. Gray, Chicago.
90 Physical Examination of Below-Grade Children. C. Hedger, Chicago.

79 and 82. Abstracted in The Journal, Feb. 6, 1909, p. 498.

80. Published in the *New York Medical Journal*, January 30, *Chicago Medical Recorder*, March, and *Alabama Medical Journal*, March, and abstracted in The Journal, Feb. 13, 1909, p. 588.

83. **Heredity.**—Castle discusses the material basis of heredity, Mendel's law, the production of new varieties, sex as a Mendelian character, hidden factors, atavism, and the origin of varieties by loss of factors, the law of blending inheritance, and intermediate types of inheritance. He summarizes his conclusions as follows: In all forms of inheritance alike, each parent makes, as regards every separately heritable character, a unit contribution to the offspring. Consequently, the offspring are as regards every character two-fold, or dual, organisms. When the offspring *in turn reproduce, they* transmit the conditions which they received from their parents; they transmit those conditions separately in alternative inheritance, blended in blending inheritance, and partially separate, partially blended in other forms of inheritance.

85. **Eugenics.**—Davenport discusses the results of mating between superior, inferior and mediocre individuals, and shows that with exceptional parents some of the offspring will be exceptional individuals, but also that, whatever the parentage, *many individuals* will be inferior in respect to many or even all essential characters, and these are known as degenerates. Animal breeding has two distinctly different objects, arrived

at by almost opposite methods: (1) the promotion of a few exceptional individuals, like race horses and fancy stock generally; (2) the raising of the general average of the breed. In the first case, only exceptional individuals are used for breeding purposes. Some would imitate this procedure with humans, but Davenport holds that we secure the same results in a good degree through preferential mating. It is not true, as a rule, that people choose opposites. On the contrary, tall tends to marry tall, and short, short; musical, musical, etc. To go beyond this natural result of preferential mating, we should be obliged to apply to our marriage laws of the best people, such restrictions as would dangerously interfere with the deepest human instincts, in which attempts we should either fail, or else we should blot out of the race its choicest asset and most valuable character—love. The raising of the average may be attained by breeding from the few or by excluding the lower limits of the race. We can not exclude as widely as the animal breeder does, but we can aim at the absolute exclusion of the degenerate. Davenport sums up by saying that he can not approve the oft-proposed interference with the marriage relations of normal people. Any mistakes they make will be blotted out mechanically and will not permanently weaken the race, or greatly hamper it at any given moment. But he would deal differently with the criminal class and take every opportunity to eliminate them from the possibility of reproducing their kind when they are once adjudged to be degenerates.

87, 88, 89. Abstracted in The Journal, June 27, 1908, p. 2153.

Pennsylvania Medical Journal, Athens

April

91 *Progress in Otology. F. W. Frankhauser, Reading.
92 *Redundant Sigmoid. J. G. Clark, Philadelphia.
93 *Etiology, Diagnosis and Treatment of Acute Intestinal Obstruction. L. B. Kline, Catawissa.
94 Intermittent Intestinal Obstruction from Kinks in the Large Bowel. J. B. Roberts, Philadelphia.
95 Intestinal Obstruction as a Complication of Acute Appendicitis. L. Brinkmann, Philadelphia.
96 *Intestinal Obstruction in Connection with Tuberculosis or Tuberculous Peritonitis. H. M. Neale, Upper Lehigh.
97 Treatment of Septic Cases of Appendicitis. F. A. Goeltz, Erie.
98 *Early Signs of Ectopic Gestation. R. R. Huggins, Pittsburg.
99 *Treatment of Terminated Ectopic Pregnancy. C. A. Stillwagen, Pittsburg.
100 *Present Day Therapy. J. P. Roebuck, Lititz.
101 *The Non-Medicinal Treatment of Disease. D. Riesman, Philadelphia.
102 Surgical Treatment of Some of Our Medical Cases. W. H. Hartzell, Allentown.
103 Treatment of Alcoholism. L. M. Gates, Scranton.
104 Chronic Diarrhea Relieved by Removal of a Chronically Inflamed Appendix. J. Sailer, Philadelphia, and J. L. Atlee, Lancaster.
105 Homatropin Poisoning with Complete Transient Aphasia. A. Bray, Philadelphia.
106 Review of Two Hundred and Fifty Cases of Pulmonary Tuberculosis. H. L. Bates, Philadelphia.
107 Sewage Disposal for Country Houses. H. B. Wood, Philadelphia.

91. Abstracted in The Journal, Oct. 3, 1908, p. 1178.

92. **Redundant Sigmoid.**—Clark arrives at the conclusion that this condition is due, not to a primary defect, but to an unequal growth of the large intestine after birth. He cites in support Piersol's "Anatomy," to the effect that the large intestine grows at the expense of the sigmoid flexure, which, at birth, forms nearly one-third of the whole, while at four months it has assumed practically its permanent proportion. He considers that the explanatory key to developmental anomalies is to be found in this statement. He reports four cases of operation for redundant sigmoid and concludes that, in exaggerated cases, nothing short of a radical resection of the redundant organ will effect a cure. But as resection of the sigmoid is a grave major operation the symptoms must be very threatening to justify it. In cases in which the redundancy has been encountered in the course of another operation, he has lightly tacked the dorsum of the sigmoid to the peritoneum of the lateral abdominal wall, on a level with the brim of the pelvis, with the intention of causing light adhesions and thus preventing the redundant loop from falling into a vicious position in the pelvis. Some of the patients have been almost or entirely relieved by this simple procedure.

93, 96, 98, 99, 101. Abstracted in The Journal, Nov. 7, 1908, pp. 1629, 1630.

100. **Present-Day Therapy.**—Roebuck says that present-day therapy is advanced so slightly that the question arises whether or not we have retrogressed. About 33 per cent. of all prescriptions dispensed are for non-official drugs. The lowest percentage is from Philadelphia—22 per cent. of non-official drugs and the highest from Scranton, with a percentage of 45. While some of the liquid preparations of official drugs with non-official formulas have value, the Pharmacopeia and National Formulary will show preparations of equal value, with the advantage of a standard which should be used by professional men. To use nostrums and preparations with incomplete formulas is a disgrace to science and ethics. The remedy for the evil lies in education through the medium of the medical journals and publications which teach the every day practitioner. Since the Council on Pharmacy and Chemistry of the American Medical Association is publishing a list of non-official drugs, if such remedies are to be used, it is at least possible to make an intelligent selection.

Journal Michigan State Medical Society, Detroit

April

108 Small Epidemic of Acute Anterior Poliomyelitis. J. G. R. Manwaring, Flint.
109 *Plea for Early Diagnosis in Carcinoma of the Uterus. J. H. Carstens, Detroit.
110 Appendicitis. W. K. West, Painesdale.
111 Anesthetics, Especially Somnoform. G. C. Hafford, Albion.
112 *Acute Toxemia after Chloroform Anesthesia. F. W. Heysett, Fressoll.
113 Rabies in Man and Animals. G. W. More, Ionia.

109, 112. Abstracted in The Journal, Aug. 29, 1908, pp. 785, 786.

Southern California Practitioner, Los Angeles

April

114 Surgical Progress of the Past Year. A. S. Lobingier, Los Angeles.
115 Medical Progress of the Past Year. D. J. Frick, Los Angeles.
116 Smallpox. Its Initial Stage. J. R. Bancroft, Los Angeles.

Western Medical Review, Omaha

April

117 Diet in Nephritis. T. Truelsen, Omaha.
118 Treatment of Pathologic Scar Tissue. C. A. Roeder, Grand Island, Neb.
119 Use of the X-Ray in Malignant Growths. W. H. Mick, Omaha, Neb.

Old Dominion Medical Journal, Richmond, Va.

April

123 Recent Studies in the Physiology and Pathology of the Parathyroid Glands. W. N. Berkeley, New York.
124 *Prognosis in Tabes Dorsalis. W. Sinkler, Philadelphia.
125 Consideration of Factors in the Mortality of Appendicitis; Based on a Consecutive Series of Five Hundred Operations, with Two Deaths. L. G. Guerry, Columbia, S. C.
126 Paresis of a Levator Palpebrarum Occasioned by Frontal Sinusitis. W. C. Posey, Philadelphia.
127 Aggressive War against Typhoid. W. D. McCaw, Washington, D. C.
128 Importance of the Digestive Tract in Treatment of Pulmonary Tuberculosis. I. J. Archer, Black Mountain, N. C.
129 Open Air Treatment in Surgical Tuberculosis, with a Word About Sunshine. O. Smith, Asheville, N. C.

124. **Tabes Dorsalis.**—Sinkler points out that recent advances in medical science and modern methods of treatment have made a great change in the prospect of betterment or comparative cure in many cases of tabes dorsalis. He discusses the three stages of the disease and says that in the first stage good results are often obtained or the disease may be arrested; antisyphilitic remedies, massage and hydrotherapy are indicated. In the ataxic stage our efforts should be directed to the re-education of the muscles, the improvement of general health and the building up of the nervous system; potassium iodid and mercury, or, when these are not given, strychnin, glycerophosphate of lime, and arsenic should be used. Sinkler says that he is sure that he has seen benefit from the solution of arsenic, gold and mercury. The most valuable method of treatment is the so-called Fraenkel movements. Rest is an important factor. Electricity in his experience is of comparatively little value except as a mechanical method for muscular exercise. Tabetics are very susceptible to cold, so that a mild climate is desirable. In the paralytic stage there is nothing to be done but to make the patient comfortable. Aluminum chlorid in 5 grain doses has proved of advantage in his hands.

Medical Herald, St. Joseph, Mo.

April

130 *Diagnosis of Bright's and Allied Diseases. N. S. Davis, Chicago.
131 *Cancer of the Uterus. H. J. Boldt, New York.

130, 131. Abstracted in The Journal, May 8, 1908, p. 1535.

Therapeutic Gazette, Detroit, Mich.

April

132 *Intermittent Intestinal Obstruction from Kinks in the Large Bowel. J. B. Roberts, Philadelphia.
133 *Etiology, Diagnosis and Treatment of Acute Intestinal Obstruction. L. B. Kline, Catawissa, Pa.
134 *Intestinal Obstruction with Tuberculosis or Tuberculous Peritonitis. H. M. Neale, Upper Lehigh, Pa.
135 *Intestinal Obstruction as a Complication of Acute Appendicitis. L. Brinkmann, Philadelphia.
136 *Treatment of Septic Cases of Appendicitis. F. A. Goeltz, Erie, Pa.
137 *Redundant Sigmoid. J. G. Clark, Philadelphia.

132, 135, 136. Published also in the *Pennsylvania Medical Journal*, April, 1909.

133, 134. Abstracted in The Journal, Nov. 7, 1908, p. 1629, and also published in the *Pennsylvania Medical Journal*, April, 1909.

137. Published in the *Pennsylvania Medical Journal*, April, 1909. See abstract No. 92.

Bulletin Johns Hopkins Hospital, Baltimore

April

138 *Experimentally Induced Choked Disc. H. Cushing and J. Bordley, Baltimore.
139 *Excretion of Hexamethylenamin (Urotropin) in the Cerebrospinal Fluid and Its Therapeutic Value in Meningitis. S. J. Crowe, Baltimore.
140 *Is the Pituitary Gland Essential to the Maintenance of Life? L. L. Reford and H. Cushing, Baltimore.
141 *Experimental Surgery of the Mitral Valve. B. M. Bernheim, Baltimore.
142 Hydrocephalus Treated by Drainage into a Vein of the Neck. R. D. McClure, Baltimore.
143 Effort to Determine the Sensory Path from the Ocular Muscles. P. W. Harrison, Baltimore.
144 Some Methods of Anastomosing Blood Vessels. B. M. Bernheim, Baltimore.
145 *Effect of Narcosis on the Body Temperature. S. G. Davis, Baltimore.
146 *Postoperative Pulmonary Complications.* J. Homans, Boston.

138. **Choked Disc.**—Cushing and Bordley report experiments undertaken to establish the etiology of choked disc. The authors summarize the experiments as follows:

1. The introduction of fluid under tension into the intracranial subdural space will produce an acute edematous swelling of nerve head and retina—in other words, a choked disc—which can be observed during life with the ophthalmoscope and demonstrated by a study of the tissues after death.
2. Simple digital compression exerted against an area of the dura exposed by a trephine opening, and without the introduction of new fluid under tension, will produce similar lesions.
3. These acute edemas of the nerve head and retina are associated, under both conditions, with distention of the optic sheath, particularly of its subarachnoid spaces.
4. Venous congestion *does not seem* capable, without the concomitant action of the fluid under tension in the optic sheath, of producing more than the congestive features of choked disc: in other words, under the conditions of the experiments it failed to occasion any appreciable edema of the nerve head.
5. Long-continued pressure against a dural defect can lead to retinal hemorrhages and other clinical, as well as histologic features, which characterize chronic choked disc in man.
6. The introduction between the skull and dura of foreign bodies which are capable of subsequent *increase in size* and which possess some elasticity, will closely simulate the action of a new growth, and, placed either above or below the tentorium, will lead to the production of choked disc.

It may, therefore, be stated in *conclusion*, that:

1. The occurrence of the neuroretinal edema is primarily dependent on the passage of cerebrospinal fluid under tension from the subarachnoid spaces of the interpeduncular region into the vaginal sheath of the optic nerve, and that cerebral decompression often allows the process to subside, owing to a resultant diminution of tension from release of the confined fluid.
2. The experimental work corroborates many of the more recent clinical observations *in showing* that a choked disc, even of considerable height, may be rapid in its formation, and, provided it has not gone on to the stage of new tissue formation, may rapidly subside; and thus speaks strongly in favor of a mechanical, as opposed to a chemical or inflammatory, origin for the lesion.

139. **Hexamethylenamin in Meningitis.**—Crowe reports experiments on the excretion of hexamethylenamin in the cerebrospinal fluid and summarizes the results as follows:

1. Urotropin (hexamethylenamin), when given by mouth, invariably appears in the cerebrospinal fluid. This fact has been demonstrated by a large number of observations on man, and is also true for dogs and rabbits.
2. The largest amount of urotropin (hexamethylenamin) is present in the cerebrospinal fluid from 30 minutes to an hour after the ingestion of the drug.
3. After doses of urotropin, within therapeutic limits, a sufficient amount of the drug appears in the cerebrospinal fluid to exercise a decided inhibitory effect on the growth of organisms inoculated into this fluid after its removal from the body.
4. Following a subdural inoculation of dogs and rabbits with streptococcus, from 60 to 80 grains of urotropin a day, given under conditions which insure absorption, will markedly defer, and in some *cases prevent*, the onset of a fatal meningitis.
5. In view of these observations, the prompt administration of urotropin is advised in all clinical cases in which meningitis is a possible or threatened complication, or even when meningeal infection has actually occurred.

140. **The Surgery of the Pituitary Gland.**—Reford and Cushing report experiments which lead them to sustain Paulesco's contention, that a total hypophysectomy is incompatible with the continuance of life, although its average duration in their series of typical extirpations has been somewhat longer than that observed in Paulesco's cases. Consequently they infer that the surgery of the hypophysis must be limited either to the removal of tumors which may implicate the pituitary gland, or, in case of hypertrophy, to a partial hypophysectomy.

141. **Surgery of the Mitral Valve.**—Bernheim has undertaken to answer experimentally the question raised by Sir Lauder Brunton: Can a mitral stenosis be transformed by surgical measures into an insufficiency with benefit to the patient? He reports additional progress with special reference to the operative methods that have been used in the attempt to narrow the left ventricular orifice, which has been found the most difficult of all valvular lesions to reproduce. Although on numerous occasions he has been able to constrict the mitral ring by a suture, and has succeeded in some of these cases in subsequently dividing the constriction, he has not yet been able to reproduce the typical presystolic murmur or the usual symptoms characterizing the "button hole" stenosis in man. Hence the question of possible symptomatic benefit from the procedure still remains unanswered. He describes the method pursued. The procedure now used is far easier to carry out than the original stenosing operation, takes less time, the hemorrhage is easily and accurately controlled, and the operative mortality is low. These he considers points in favor of the future possible operation on man according to Brunton's suggestion.

145. **Anesthetics and Body Temperature.**—Davis reports experiments that tend to support the previous observations made by Kappeler, Allen and Mills, and to justify the following conclusions:

1. Chloroform produces a loss *of body temperature approximately* equal to that produced by ether.
2. Surrounding the field of operation with wet towels will greatly increase *the loss of body temperature and* should therefore be studiously avoided.
3. The loss of temperature produced by ether narcosis will not be greatly increased by the preliminary administration of a moderate dose of morphin.
4. The excessive application of heat to an *individual* while under the influence of morphin will lessen the usual loss of body temperature from this drug, and the additional administration of ether under these circumstances may lead to a rise in body temperature rather than the expected fall.
5. Warming the ether vapor before inhalation will likewise prevent the loss of *body temperature, or may actually increase* it in a degree proportionate to the temperature of the vapor and also to that of the operating room. An undue elevation of body temperature from this source is doubtless injurious; the object should be to maintain an even temperature.
6. In a human patient kept warm and dry during anesthesia the loss of temperature will be much less than when the body is wet and exposed; and, furthermore, the fall in temperature is less, under ordinary conditions of anesthesia, in a room with a temperature above 26.6° C. (80° F.) than in a room of a lower temperature.
7. Patients consequently should not only be kept dry and warm, but be anesthetized in a room free from draughts, and should not be transferred to a cold room, even *after the anesthetic* is discontinued.
8. With such profound variations in body *temperature as* have been observed, with many of the patients complaining of being cold even after they have returned to their beds, it perhaps is not surprising that post-anesthetic pulmonary complications are not uncommon.

Atlanta Journal-Record of Medicine

March

147 Pneumonia. J. B. Baird, Atlanta.
148 Blood in the Urine (continued). A. L. Fowler, Atlanta.
149 Empyema. C. P. Ward, Atlanta.
150 Gonorrheal Cases Treated with Serum. M. S. Rosenthal, Baltimore.
151 Acute Traumatic Tetanus Treated by Magnesium Sulphate (continued). A. P. Heineck, Chicago.
152 Surgery of the Appendix. R. R. Kime, Atlanta.
153 Sex Education. F. Cabot, New York.
154 Glass Drainage Tubes in Prostatic Surgery. F. Cabot, New York.

Monthly Cyclopedia and Medical Bulletin, Philadelphia

March

155 Treatment of Typhoid with Solution of Calcium Creosote (concluded). L. Kolipinski, Washington, D. C.
156 Medical Treatment of Acute Appendicitis. T. G. Green, Shelbyville, Ind.
157 *Clarification of our Concepts Concerning Hysteria. T. A. Williams, Washington, D. C.
158 Practical Applications of the Newest Principles Introduced by Dr. Sajous. J. M. Taylor, Philadelphia.
159 Lupus Vulgaris. J. V. Shoemaker, Philadelphia.
160 Efficiency and Sufficiency of United States Pharmacopeia and National Formulary Preparations for the General Practitioner. J. M. Anders, Philadelphia.
161 Uterine Moles, with Special Reference to Hydatidiform Mole. J. S. Raudenbush, Philadelphia.
162 Tuberculosis of the Breast. W. L. Rodman, Philadelphia.

157. **Hysteria.**—Williams discusses this subject in the light of the recent discussion at the Paris Neurological Society, and says that from the foregoing considerations it follows: (1) That from hysteria must be eliminated cases of trickery, simulation and mythomania; (2) that to the syndrome of hysteria do not belong modifications of reflectivity; (3) that the vasomotor and trophic neuroses have nothing to do with hysteria; and (4) that other psychoneurotic states, such as psychasthenia, neurasthenia, cenesthopathia, mental debility, and confusion, the early phases of dementia precox, dream-like states, and emotional perversions must not be confounded with hysteria. The hit-or-miss psychotherapy of encouragement in many cases does more harm than good. It is as dangerous, therapeutically, as digitalis or the knife in hands ignorant of pathology.

FOREIGN

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

Lancet, London

April 17

1 *Disorders of the Cerebral Circulation and Their Clinical Manifestations. A. E. Russell.
2 *Rôle of the Saliva in the Transmission of Tubercle. N. Neild and E. V. Dunkley.
3 Two Unusual Conditions of the Gall Bladder. H. Lett.
4 Vascular Degeneration: A Study in Cardiac Arrhythmia. A. M. Gossage.
5 *Some Applications of the Precipitin Reaction in the Diagnosis of Hydatid Disease. D. A. Welsh, H. G. Chapman and J. C. Storey.
6 Recurrent Hematoporphyrinuria with Toxic Symptoms not Due to Sulphonal. W. L. Brown and H. O. Williams.
7 Intussusception of Sigmoid of Colon. A. Don.
8 Disease of Hip Joint Due to Streptococcal Invasion, with Secondary Manifestations in other Parts. W. O. Beddard.
9 An Interesting Case of Appendicitis: Perforation—Operation; Recovery. T. W. Parry.

1. **The Cerebral Circulation.**—Russell describes the results of experimental study of the restoration of circulation after the blood supply of the brain has been cut off. He discusses the time limit of the recovery of the brain from arrest of the circulation, the postmortem condition of the brain, reviews the symptoms, and regards the diminution in the blood flow through the brain as the result of increased intracranial tension. His observations, clinical and pathologic, lead him to the conclusion that the fundamental condition underlying the status epilepticus is cerebral anemia.

2. **Saliva and the Transmission of Tubercle.**—Neild and Dunkley have been impressed by the freedom with which the tuberculous patients use their saliva for purposes in no way connected with their digestion, and by the fact that few, if any, tuberculous patients are warned against such uses. In 50 cases of pulmonary tuberculosis, saliva from the tip of the patient's tongue showed tubercle bacilli in 29. Among the practices by which the possible transmission of tubercle bacilli was shown, were licking the finger to pick up the lead of a mechanical pencil, spitting on the hands to use a rake, tennis racket, etc., licking the finger to turn over the pages, spitting on a slate, biting the end of sewing thread. Saliva is often used as a styptic. The nipple is wetted with it to encourage a child to take the breast. Then there are the various methods of using saliva for closing envelopes and affixing stamps. One of the authors has recently met with two cases of lupus of the face, in which there was a definite history of face cleaning with saliva by the pulmonary tuberculous.

5. **Precipitin Reaction in Hydatid Disease.** Welsh, Chapman and Storey refer to their previous experience of precipitin reaction in hydatid disease, as reported in the *Australasian Medical Gazette*, January, 1908, and abstracted in THE JOURNAL, April 18, 1908, p. 1309. They make a further report, dealing mainly with the interactions of hydatid fluids (a) not derived from the patient whose serum was being tested; (b) of longer standing than those used in the first series, and (c) subjected to various methods of treatment, in order to preserve them in a sterile condition for many years. The conditions of experiment, therefore, were less favorable than in their first series. They state their conclusions as follows:

> 1. A precipitate was not obtained in any interaction between hydatid fluid and human serum from a patient not invaded by hydatid cysts.
> 2. Having regard to the long duration and probable irregularity of the interchange of protein molecules between a hydatid cyst and its human host, and having regard also to the possible unsuitability of the hydatid fluid, we must expect a certain number of precipitin tests to fail to give satisfactory precipitate, and this has been the author's experience.
> 3. In the conditions of a diagnostic precipitin test as above described for patients suspected to harbor hydatid cysts, a negative reaction is inconclusive, but a positive reaction is conclusive of hydatid invasion, and the latter may be obtained in circumstances of clinical importance.

British Medical Journal, London

April 17

10 *Dysmenorrhea. G. E. Herman.
11 Importance of Pain and Hemorrhage as Symptoms of Extra-uterine Gestation. T. W. Eden.
12 Three Recent Cases of Tubal Pregnancy. C. E. Purslow.
13 Surgical Treatment of the Umbilical Cord. J. W. Ballantyne.
14 Chronic Inversion of the Uterus. R. J. Johnstone.
15 Inguinal Hernia of Uterus. R. Parker.
16 Cesarean Section with Unusual Indications. R. C. Buist.
17 *Tetanus Occurring After Surgical Operations. W. G. Richardson.
18 Fracture of the Thigh in the New-Born. J. L. T. Isbister.

10. **Dysmenorrhea.**—Herman insists that dysmenorrhea is a disease and not a symptom. About one-third of all women menstruate without pain. They have, as a rule, good appetites, sleep soundly, and are not easily tired. They have healthy nervous systems. Before and during menstruation some increase in vascular tension and rise of temperature takes place, and, in those who are ill or weak, this reduces the nervous strength, making them more sensitive to pain, but in most women this pain is slight. In nearly every local disease that causes pain the pain is worse about the time when menstruation begins. This is so in neurasthenics, in various pelvic conditions in nervous diseases, etc. But the pain is not the acute spasm of dysmenorrhea; it is the pain of the other morbid condition rather worse than usual. Herman objects to all such terms as "neurasthenic dysmenorrhea," "menstrual epilepsy," etc., which imply the dependence of the disease on menstruation. He also objects to "obstructive dysmenorrhea," and "membranous dysmenorrhea," contending that the word dysmenorrhea should be restricted to its proper meaning, namely, to denote morbid painful uterine contractions accompanying menstruation. Patients who pass membranes suffer, not because membranes are passed, but because their nervous systems are weak. In the worst cases of dysmenorrhea the patient writhes, perspires, vomits and sometimes faints with the severity of the pain, which is not relieved when the woman lies down, whereas it is relieved when pain is due to inflammation or congestion of dependent parts of the body. Another feature of the pain is its short duration, as compared with the discomfort caused by the monthly congestion. The view that dysmenorrhea depends on a malformation, seems to Herman inconsistent with the clinical experience that in about one-third of the cases the pain begins suddenly after years of painless menstruation. In such cases, the patients often have their own explanation for it, such as mental or physical shock, or strain. In the case of a small fibroid which sets up uterine contractions, we do know the real cause of the dysmenorrhea. The pain of true dysmenorrhea reduces the pain-resisting power of the nervous system; consequently,

reflected pain is felt over the skin supplied with sensory nerves from the eleventh dorsal to the second lumbar segments of the spinal cord. A dysmenorrheic, if touched over the skin of this region when menstruating, immediately winces. Dysmenorrhea has no tendency to spontaneous cure. The only cure, other than medical treatment, is childbearing.

Herman's theory is that dysmenorrhea exists because the center in the spinal cord or in the sympathetic system which should regulate the movements of the genital canal is imperfectly developed. In dysmenorrhea the natural dilatation of the cervix is absent, consequently the contractions of the uterine body are morbidly violent and painful. Herman's experience leads him to believe that when the cervix dilates slowly and with difficulty, dilatation will cure the dysmenorrhea, but when it is easily accomplished it will not. When the pain is actually present, the local application of heat and the use of coal tar analgetics is the treatment. The unfailing cure is to stop menstruation, but this is justifiable by operative methods only in certain instances. Ten grains of guaiacum resin, three times a day, begun a week before menstruation and continued till the usual pain time is passed, will effect a cure in a certain number of cases. The next thing is dilatation of the cervix with metal bougies, with, if the os externum is very small and circular, division of the vaginal cervix. To differentiate this dysmenorrhea from cases in which some pain due to other causes occurs during or is exaggerated by menstruation, will save many fruitless operations. Before advising so grave a measure as oöphorectomy, the great thing is to be sure that the pain and the prostration spring from menstruation and nothing else.

17. **Tetanus After Surgical Operation.**—Richardson summarizes his observations on twenty-one cases of postoperative tetanus as follows: Hamilton pointed out that there is a group of diseases among sheep, the symptoms of which are closely allied to tetanus and the bacilli of which can not be distinguished from those of tetanus. In these diseases, the bacilli are normal inhabitants of the sheep's intestine, but at certain periods of the year they pass from the lumen of the bowel into the blood, where they become bacteriolyzed, and the liberated toxins give rise to the symptoms of the various diseases. During these seasons the bacilli are found in the peritoneal cavity and in no other part of the body. These diseases are endemic in certain parts of the British Isles. The twenty-one cases of postoperative tetanus have occurred only in those districts in which the tetanic group of sheep diseases is endemic. More than 90 per cent. of the cases of postoperative tetanus followed operations in which the peritoneal cavity had been opened. Bacilli resembling tetanus bacilli have been found in the remnant of catgut used for ligatures in four cases and in the ovarian pedicle in one case, but confirmation of the suspicion that they were tetanus bacilli has not been forthcoming. Richardson suggests that: 1. The disease which we call postoperative tetanus is not tetanus at all, but one of the sheep's diseases. 2. It is not introduced by the catgut. 3. The patient is, at the time of the operation, the host of the bacillus. 4. We must look on these cases of postoperative tetanus as cases of idiopathic tetanus, accepting Hamilton's suggestion that idiopathic tetanus is not true tetanus, as we ordinarily understand the disease. Richardson, however, does not assume that these patients would have developed tetanus had no operation been performed. He would rather account for the sequence of events by supposing that the disturbance aroused by the opening of the peritoneum at the operation was of such a nature as to favor the activity of the bacilli, which, possibly, would have remained dormant had no operation been performed. 5. That the mere opening of the abdomen can affect the interaction of a patient and bacilli already present in the peritoneum, is frequently demonstrated in cases of tuberculous peritonitis, when a small incision without any other interference is followed by immediate improvement of a local condition and ultimate complete recovery. To the suggestion that the ligatures are infected at or before the time of operation, he adduces the fact of a large number of knee-joint operations without any mishap as pointing to the sterility of the gut.

Medical Press and Circular, London

April 14

19 *Duodenal Ulcer: Its Diagnosis and Surgical Treatment. J. Sherren.
20 Prevention of Blindness Due to Ophthalmia Neonatorum. N. B. Harman.
21 Treatment of Varicose Veins of the Lower Limb by Intravenous Injections of Iodin. B. Schiassi.
22 Streptothricosis; with Special Reference to the Etiology of Mycetoma. W. R. Musgrave and M. T. Clegg.

19. **Duodenal Ulcer.**—Sherren reviews his 13 cases of chronic duodenal ulcer in which he operated before perforation had occurred. He has been struck by the long period during which the patients had had symptoms and in many cases had been treated medically. Passing the symptoms in review it can be said that chronic ulcers situated in the first part of the duodenum can be accurately diagnosed in the majority of cases; that occasionally a gastric ulcer will be found where a duodenal ulcer was expected; that in all cases the principal symptom is pain, coming on a considerable time after a meal, often said to have no relation to food, at other times relieved by taking food, and often waking the patient at night. Vomiting is not a feature of the case unless the condition has led to dilatation of the stomach. It occurred in eleven out of the thirteen cases, but it was not a prominent feature except in the cases he has mentioned. Difficulties arise in the cases in which the ulcer is situated in the second part of the duodenum, or at the junction of the first and second parts. An effort should always be made to diagnose these cases early, and to investigate carefully every "dyspepsia" occurring in men of adult age, so as to avoid perforation. It appears probable that a duodenal ulcer does not heal, except as the result of operation, so that if the condition is diagnosed operation should be undertaken without delay. The prognosis after operation is extremely good. He has traced the after-history of all his patients. One patient died of bronchopneumonia 5 days after operation. At the postmortem examination the anastomosis was perfect and the abdomen normal. Of the other patients, all have lost their symptoms and in only one is there even discomfort. All surgeons report the same results, so that we have in gastroenterostomy a cure for duodenal ulcer which should not be left too long before it is applied.

Clinical Journal, London

April 14

23 Autoinoculation versus Heteroinoculation in Treatment of Established Infection. E. C. Hort.

Australasian Medical Gazette, Sydney

February

24 Midwifery, with Special Reference to Occipito-Posterior Positions, Hemorrhages, Eclampsia, and Extrauterine Pregnancy. W. H. Crago.
25 Axis-Traction Forceps. J. R. Purdy.
26 *Active Immunization Measures of Treatment in Pulmonary Tuberculosis. M. M. Sinclair.
27 Lupus of the Nose Succesfully Treated by Injections of Tubercle Bacillus Emulsion. F. Tratman.
28 Pneumothorax: A Recurrent Case. J. Jamieson.
29 Operative Treatment of Oblique Inguinal Hernia. R. S. Bowker.
30 Treatment of Syphilis. W. McMurray.
31 Pediculosis Capitis, especially in Its Relation to Impetigo Contagiosa. A. G. Salter.
32 Wright's Method of Section-Fixing Applied to Central Nervous System. O. Latham.

26. **Active Immunization in Pulmonary Tuberculosis.**—Sinclair, from a practical study of tuberculin inoculation in a large number of cases, concludes that no process of immunization at present known can displace the rational principles of sanatorium treatment. Experimental and theoretical considerations on immunity both show that properly spaced injections of tuberculin may raise the resistance of the tissues against the disease, but can not produce an absolute immunity. Such increased resistance may be of use (a) for therapeutic purposes during the process of healing; (b) in helping to prevent a recurrence. No constitutional immunizing process is of much use in pulmonary tuberculosis unless it is accompanied by local changes in the direction of (a) absorption of recently formed tubercle wherever possible; (b) the formation of a firm cicatrix around the focus of degenerate tubercle. In the production of a cicatrix around the lesion the local hyperemia reaction produced by the injection of tuberculin is possibly of more value than any constitutional immunity

which the inoculations have as yet been able to produce. So far as can be seen, perfectly good results can be obtained in pulmonary tuberculosis without the help of the opsonic index. In regard to progressive increase of dosage versus the infinitesimal doses recommended by Wright, Sinclair has made it his practice to begin with the latter doses in all cases; but in many obstinate and difficult cases a progressive increase in dosage will still further enhance the results. The suggestions of disaster by Wright and his pupils in these cases are, so far at least as pulmonary tuberculosis is concerned, disproved by the actual results of practice in the hands of competent observers.

Intercolonial Medical Journal of Australasia, Melbourne

February

33 Cleft Palate. R. H. Russell.
34 Four Hundred and Four Cases of Diphtheria at the Infectious Diseases Hospital, Fairfield, Melbourne. C. V. Mackay and R. A. O'Brien.
35 Infraorbital Neuralgia Relieved by the Excision of Meckel's Ganglion. B. Kilvington.
36 Series of Hospital Cases. J. W. Springthorpe.
37 *Some Contents of Blood Plasma and Their Absorbability by Oral Exhibition. D. M. Paton.
38 Mastoiditis with Subdural Abscesses, Followed by Jaundice, Pericarditis and Recovery. J. M. Baxter.
39 Amyotrophic Lateral Sclerosis. F. A. Nyulasy.

37. **Blood Plasma.**—Paton summarizes his article as follows:

1. Blood plasma contains the secretions of the systemic glands.
2. These secretions are necessary to life.
3. Their active principles are extremely stable, are not affected by digestion, and are readily dialyzable.
4. In normal plasma they are present in that proportion and combination which is found necessary for the maintenance of cellular nutrition, integrity, and function, under physiologic conditions.
5. When the animal is naturally refractory, the proportion and combination of these plasma elements are of such a character that they are capable of maintaining cellular nutrition, integrity, and function, in the presence of the infections to which the animal is refractory.
6. From their character for stability, non-digestibility, and dialyzability they are readily absorbed from the digestive tract.
7. Being transferred to the patient unchanged, both in character and combination, they produce in him the same results as those for which they were originally intended in the animal supplying them.

Dublin Journal of Medical Science

April

40 Unusual Case of Lupus Mutilans. W. G. Smith.
41 *Prognosis in Valvular Disease of the Heart. Sir J. F. H. Broadbent.

41. Published in the *Medical Press and Circular*, March 31, 1909.

Journal of Laryngology, Rhinology and Otology, London

April

42 Laryngectomy: Method of Artificial Voice Production. J. W. Gleitsmann.

Annales de Dermatologie et de Syphiligraphie, Paris

March, X, No. 3, pp. 145-224

43 Coal Tar in Treatment of Cutaneous Lesions. (L'emploi de goudron dans les affections cutanées.) Dind.

Lyon Chirurgical, Lyons

April, I, No. 6, pp. 585-720

44 *Forty Cholecystostomies and Cholecystectomies. (Drainage et ablation de la vésicule biliaire.) E. Villard and Nové-Josserand.
45 *Bismuth Paste in Treatment of Fistulas. (Traitement des trajets fistuleux par le mélange bismuthé de E. G. Beck.) G. Nové-Josserand and A. Rendu.
46 *Tubal Pregnancy. (De la grossesse tubaire.) Albertin and Desgouttes. Commenced in No. 5.
47 Diagnosis of Wounds of the Heart and Value of Water-Wheel Sound in Stab Wounds of Chest. (Diagnostic des plaies du cœur et valeur du bruit de moulin dans les plaies pénétrantes de poitrine.) R. Leriche.
48 Forward Dislocation of Elbow with Fractured Inner Condyle. (Luxation du coude en avant avec fracture de l'épitrochlée.) M. Patel.

44. **Drainage of the Gall Bladder.**—The conclusions from 40 operations on the gall bladder are summarized in the statements that cholecystostomy is an excellent operation in case of stones or infections restricted to the gall bladder. In case the biliary passages are infected it is inadequate, giving good results only in the cases of infection low down in the large bile ducts. The mortality in this group of cases was 42.8 per cent. The experiences were unfavorable with cholecystostomy as a means of draining in jaundice from retention or cirrhosis, the immediate mortality being 66 per cent., and 2 other patients succumbed after a brief interval. Cholecystectomy in treatment of gallstone affections should be reserved for cases of obstructed gall bladder and for those whose inflamed and thickened walls are the cause of permanent irritation of the peritoneum and neighboring organs.

45. **Treatment of Fistulas with Bismuth Paste.**—The nine cases in which Beck's method was applied gave disappointing results in some instances, while great benefit was obtained in others. The difference in the results seems to be due to the fact that symptomatic fistulas are not amenable to this method of treatment; it is liable to induce retention and do harm. But in the idiopathic fistulas there is no such objection, and the curative action is liable to be pronounced and definitely effectual.

46. **Tubal Pregnancy.**—In rupture of a tubal pregnancy, Albertin and Desgouttes advise repose, the head being kept low and application of ice to the abdomen, with repeated saline infusion and possibly administration of a few grams of calcium chlorid and measures to keep the patient constantly warm, continuing all this for twenty-four hours. As a rule, the serious symptoms subside and the loss of blood is rapidly repaired. By the third up to the tenth day is the most auspicious time for operating, before the clots have become organized and tough. These principles were applied in 80 cases with 46 laparotomies and no mortality. True hemorrhage requiring immediate intervention is extremely rare, and it is more dangerous to operate during shock than to postpone surgical measures until the patient has rallied. In 34 cases colpotomy alone was applied, and 3 of the patients did not recover. Albertin reiterates that a tubal pregnancy should never be abandoned to a spontaneous course, whatever its age and clinical manifestations. The details of the 80 cases are appended.

Presse Médicale, Paris

April 7, XVII, No. 28, pp. 249-256

49 *Share of Nervous System in the Phenomena of Acute Anaphylaxis. C. Richet.
50 Treatment of Epidemic Cerebrospinal Meningitis. Chambelland.
51 *Treatment of Pulmonary Tuberculosis by Inhalation of Copper Subacetate. (Traitement de la tuberculose pulmonaire par les inhalations de poussières de verdet.) G. Billard.

49. **The Nervous System in Acute Anaphylaxis.**—Richet stated in 1902 that the rapid and extreme reduction of the arterial pressure is the main feature of anaphylaxis, but he maintained then and still declares that this is a secondary phenomenon resulting from the primary action on the nerve centers of the poisons inducing the anaphylaxis. His experiments have never shown that the coagulating power of the blood is much reduced in anaphylaxis, while they have demonstrated beyond question that fluctuations in the blood pressure alone are incapable of producing such severe disturbances as are observed in anaphylaxis.

51. **Treatment of Tuberculosis by Inhalation of Copper Subacetate.**—Billard noticed improvement in the condition of two consumptives after they obtained work in a factory producing copper subacetate. They were employed in packing the verdigris, and soon began to improve and had no further hemorrhages from the lungs, while they regained appetite and weight. The verdigris dust is thick in some of the rooms, but none of the employés seems to notice it, and no coughing is heard in the factory. These and other facts observed led Billard to attribute healing power to the verdigris dust inhaled and he decided to use it in treatment. He has been treating thirty patients systematically in this way since last August and with encouraging results. He orders the patient to buy about 2 pounds of pulverized copper subacetate, as chemically pure as possible. It is poured into a basin and some is taken up on a card and poured back into the basin from a height; this process is repeated again and again and the dust is inhaled as it rises. The verdigris ceases to give off dust in about two weeks, and it is ground over again. Half an hour morning and evening is the general rule for this treatment. In every case in which the patients followed it the cough and expectoration subsided or ceased, w [illegible] patients [illegible] weight and strength and the [illegible] showed [illegible] sion of

to thirst, vomiting would be still more infrequent. The majority did not vomit until twelve hours or more after the anesthesia, which is important in prophylaxis of postoperative pneumonia. This combined technic is certainly, Zadro remarks, an important advance in prevention of postoperative complications on the part of the respiratory apparatus. During the last eight years pneumonia occurred as a postoperative complication in 170 out of 5,031 operations at the clinic, that is, in about 3.3 per cent.—nearly three times more frequent in men than in women. In the 770 cases, however, in which this scopolamin technic was used, postoperative pneumonia occurred in only 8 cases, that is, in 0.9 per cent. Comparing 785 other cases with pure ether or chloroform anesthesia and postoperative pneumonia in 4.8 per cent., with 579 cases in which the scopolamin technic was used, with only 0.8 per cent. postoperative pneumonia, shows the improvement in this respect realized with this technic with the same operators, operative technic and during the same months, and approximately the same set of patients. No evil effects from the scopolamin technic were observed in a single instance. The pulse was accelerated, with moderate increase in temperature, lasting for three or four days, after some operations for goiter, but under no other conditions. In one case an overdose of scopolamin was given, 0.06 gm. being injected instead of the desired 0.0005 gm., and symptoms of intoxication followed, some of the symptoms persisting for three days before complete recovery. The experiences with a patient with exophthalmic goiter and another with pronounced neurasthenia confirm the assertions of others that this technic had better be avoided with persons inclined to neurasthenia, hysteria and exophthalmic goiter. In the young and robust the doses injected have merely a sedative effect, while they throw the elderly and the feeble into a deep sleep. Among the operations performed under the scopolamin-morphin and local anesthesia were 5 resections of the stomach, 4 gastroenterostomies, 2 gastrostomies and 1 colostomy. In one case the upper jaw was resected with only 5 gm. of the Billroth mixture after the scopolamin-morphin. In 2 other cases a few whiffs of ether were required to complete a resection of the stomach. All these patients bore the operation quietly, without pain, and next day had no remembrance of the intervention. The secretion-reducing property of the scopolamin is a further obvious advantage. The dose of morphin is 0.01 gm. (3 16 grain) in operations for goiter.

Zeitschrift für klinische Medizin, Berlin

LXVII, Nos. 5-6, pp. 345-526. Last indexed March 27, p. 1073

113 *Pathology of the Nervous System Controlling the Vegetative Functions. (Zur Pathologie des vegetativen Nervensystems.) H. Eppinger and L. Hess

114 Metabolism of Chlorids and Weight in Scarlet Fever. (Chlorstoffwechsel und Körpergewicht im Scharlach.) O. Grüner and B. Schick.

115 Reciprocal Action of Glands with an Internal Secretion. II (Wechselwirkung der Drüsen mit innerer Sekretion.) II Eppinger, W. Falta and C. Rudinger.

116 Autolysins in Blood in Infectious Diseases (Autolysine im Blute bei Infektionskrankheiten.) H. Frank.

117 Appetite and Loss of Appetite W. Sternberg.

118 *Influence of Phosphorus on the Metabolism of Lime in Rachitic and Healthy Children (Der Phosphor in der Therapie der Rachitis) J. A. Schabad.

119 Pathologic-Anatomic Study of Adams-Stokes Syndrome. M. Nagayo.

120 Irregularity of the Heart Action in Infectious Diseases. (Atrioventrikuläre Automatie im Verlauf der Infektionskrankheiten.) A. Belski

121 Chyluria and Diabetes. A. Magnus-Levy.

113. **Pathology of Nervous System Controlling the Vegetative Functions.**—This communication issues from von Noorden's clinic at Vienna and reports research along lines suggested by the fact that certain substances injected into a vein or under the skin induce the same effect as isolated electric excitation of the nerves involved. Among these substances are adrenalin, atropin and pilocarpin, and the fact was confirmed that the effects induced by adrenalin are the result of action on the sympathetic system, while those induced by pilocarpin are by the mediation of the vagus, and that these two nerve systems have an antagonistic action. Glycosuria, for instance, is the expression of irritation of the sympathetic and of paralysis of the vagus, as also dilatation of the pupil, stomach and cardia, while contraction of the pupil, stomach and cardia is the result of paralysis of the sympathetic and stimulation of the vagus. When either of these nerve systems is especially sensitive, the individual reacts to the above stimuli in proportion, and those persons who react vigorously to injection of atropin and pilocarpin are not susceptible to the action of adrenalin, while those who display marked signs of irritation of the sympathetic after administration of adrenalin prove refractory to pilocarpin and atropin. The practical conclusion of the research is that atropin and pilocarpin may be expected to act with great energy, and adrenalin not at all, in cases of hyperacidity, bronchial asthma, many cases of gastric ulcer, tuberculous processes, etc. On the other hand, adrenalin induces a powerful reaction, and atropin and pilocarpin none at all, in comparison, in many cases of diabetes, nervous affections, such as tabes and multiple sclerosis, orthostatic albuminuria and carcinoma. The research is being continued to study the action of these substances on all the visceral functions, and especially to decide whether the action is diffuse throughout the nerve system involved or localized to certain parts of it.

118. **Phosphorus in Rachitis.**—Schabad's extensive experience and tests have shown that phosphorus does not seem to influence the lime metabolism in healthy children, but that it unmistakably promotes the absorption of lime in rachitis.

Zentralblatt für Chirurgie, Leipsic

March 27, XXXVI, No. 13, pp. 449-480

122 *Treatment of Habitual Dislocation of Patella. (Neues operatives Verfahren in der Behandlung der habituellen Kniescheibenverrenkung.) R. Dalla Vedova.

123 *Successful Removal of Thrombus from Inferior Thyroid Vein. (Entfernung eines 8 cm. langen Geschwulstthrombus aus der Vena thyreoidea inferior.) P. Meisel.

122. **Treatment of Habitual Dislocation of the Patella.**—Dalla Vedova's technic aims to remove the shriveled section of the lateral part of the ligamentary apparatus of the patella and remedy the insufficiency of the anterior ligament of the patella by a plastic restoration of the weak sections of the ligaments. He works through two incisions, one on each side of the patella, drawing through and fastening a strip of tendon reenforced by a strip of periosteum, the partial transplantation of the ligament of the patella forming an accessory ligament which takes the place of the insufficient anterior ligament and prevents any further displacement of the bone. He gives an illustration of the technic and reports its application in a clinical case with durable results.

123. **Removal of Thrombus from Inferior Thyroid Vein.**—Meisel states that he has encountered four cases of tumor in the thyroid gland which sent out several long processes between and into veins, etc., but these processes always lay free in the veins and could be easily pulled out. In a recent case, which he describes in detail, the adenocarcinoma in the thyroid was readily enucleated until it held only by a long process running down into the inferior thyroid vein. He applied a ligature to the vein which his assistant was told to draw tight at the word, and, utilizing the phase of expiration, lifting up the wall of the vein with pincers in the left hand, he cut the vein around with scissors in the right and was able to draw out a process 8 cm. long. It grew wider toward the tip where it was fully 2 cm. in diameter. There was no aspiration of air and the removal of the tumor thrombus was complete in less than a minute; the patient, a woman of 42, had been raised as erect as possible to prevent aspiration of air. In the four cases in which this tumor thrombosis was observed the growths were comparatively so benign that paralysis of the recurrent nerve had not yet developed.

Zentralblatt für Gynäkologie, Leipsic

March 27, XXXIII, No. 13, pp. 441-472

124 Inverted Method of Expulsion of Uterine Decidua in Tubal Pregnancy. (Ueber den invertierten Ausstossungsmodus der Decidua uterina bei Tubargravidität.) P. Buche.

125 *Suprarenal Treatment of Osteomalacia. (Adrenalin bei Knochenerweichung Osteomalakie.) B. Engländer.

125. **Disappointing Suprarenal Treatment of Osteomalacia.**—Engländer reports from Cracow six cases of osteomalacia in women between 31 and 45, following a comparatively recent pregnancy. They were given a subcutaneous injection every day or second day of 0.5 c.c. of a 1 per thousand solution, rep-

resenting 0.0045 gm. of adrenalin. This treatment was kept up for from 35 to 101 days with indifferent results. Only slight improvement was manifest, the pains and tremor persisting more or less in every case. There was marked reaction to the suprarenal preparation in some cases, rapid, deep breathing, acceleration of the pulse, palpitations, sweating, tremor, headache, vertigo, weakness and dilatation of one or both pupils, showing that these injections should never be made unless there is opportunity for constant medical supervision of the patient.

Gazzetta degli Ospedali e delle Cliniche, Milan

March 18, XXX, No. 33, pp. 345-352

126 *Biologic Research on Gastric Carcinoma. S. Livierato.
March 23, No. 35, pp. 369-376
127 Technic of Spinal Anesthesia. (Pratica della rachistovainizzazione.) G. Cocci.

126. **Fixation of Complement in Gastric Cancer.**—Livierato has applied the hemolytic test with extracts of sarcomas and carcinomas to the gastric secretions. The findings were positive in eight persons with certain gastric cancer, while they were invariably negative in persons free from cancer. The cancer extract supplies the antigen and the presence of cancer products in the stomach secretions entails the specific hemolysis in the biologic test.

Policlinico, Rome

March 21, XVI, Practical Section, No. 12, pp. 357-388

128 Therapeutic Action of Electric Colloidal Silver. (Osservazioni sull' azione terapeutica dell'argento colloidale elettrico.) D. Buttino.
129 Treatment of Incomplete Abortion. G. Massini. Commenced in No. 11.
March, Surgical Section, No. 3, pp. 97-144
130 mori parafaringei.) L. Fiori.
131 s in Deforming Arthritis of del ginocchio.) A. Ando.
132 *Primary Tuberculosis of Abdominal Muscles. (Tuberculosi primitiva dei muscoli striati.) L. Bobbio.
133 *Sterilization of Catgut. E. Bertarelli and L. Bocchia.

132. **Primary Tuberculosis of the Abdominal Muscles.**—Bobbio's patient was a letter carrier of 35 who began to experience a dull pain in the right abdominal wall, which began to swell. There was no fever at any time and the general health did not seem to suffer. The tumor was removed after a few months as a cold abscess, being resected into sound tissue, with prompt recovery of the patient. Five years later the same train of symptoms and abscess formation was observed on the left side, and the lesion was likewise resected into sound tissue with prompt recovery. Not a trace of tuberculosis could be detected elsewhere, and the patient seems in robust health. Guinea-pigs inoculated with the pus developed tuberculosis in each instance, although no tubercle bacilli could be cultivated from it. Bobbio summarizes from the literature nine cases of localization of primary tuberculosis in the abdominal muscles, presenting his own case as the tenth on record. Tubercle bacilli were found in the pus in only one case. The main difficulty in diagnosing is to distinguish the tuberculous from a syphilitic gumma.

133. **Sterilization of Catgut.**—Bertarelli and Bocchia give the details of the seventeen different methods of sterilizing catgut most in vogue and relate comparative tests with them. The conclusions are all in favor of Claudius' iodin technic as the most effectual means of sterilization. Next to this is the alcohol at 120 C. technic and then the Van Ketel and then Lister's last method. Catgut prepared by these methods retains all its desirable properties. The catgut keeps best, they say, in an alcoholic solution of corrosive sublimate with essential oils.

Riforma Medica, Naples

March 22, XXV, No. 12, pp. 309-336

134 Tumors at Base of Brain. (I tumori della base dell'encefalo.) G. Rummo. Commenced in No. 10.
135 *Downward Displacement of the Heart. (Cardioptosi Malattia di Rummo.) N. Serio-Basile.

135. **Cardioptosis.**—Basile discusses the downward displacement of the heart from weakening and relaxation of its supports without changes in its size or in the pressure in chest and abdomen. In a case described the only symptoms were irregularity of the pulse and bradycardia. The patient was a girl of seven who had entered the hospital on account of acute bronchitis. The subjective and functional disturbances differ in various cases according to the condition of the heart muscle.

Hygiea, Stockholm

February, LXXI, No. 2, pp. 99-192

136 Treatment of Syphilis with Atoxyl and Arsacetin. E. Welander.
137 Indications for Mastoid Operation in Acute Suppurative Otitis Media. (Om indikationerna för uppmeijsling af processus mastoideus vid akuta suppurationer i mellanörat.) C. B. Lagerlöf.
138 *Anastomosis of Bile Ducts with the Jejunum. (En ny operation på gallvägarna.) R. Dahl.
139 *Psychologic Expert Testimony in Trial of Witches at Stockholm, 1676. (Urban Hjarne och häxprocesserna i Stockholm, 1676.) B. Gadelius.

138. **Anastomosis Between Hepatic Duct and Jejunum.**—Dahl performed an operation of this kind on a woman of 61 who had been troubled for eighteen years with gallstones and had been operated on four months before with a resulting fistula which refused to heal. None of the usual technics was applicable in this case, as the stump of the hepatic duct was too short to be implanted in the duodenum, even if it had been advisable to expose the patient to the danger of infection from this part of the intestines. The research of Jundell and others has shown that conditions are much more favorable for implantation of a bile duct in the jejunum; this stretch of bowel is comparatively sterile, as its contents are passed along quickly and it is soon left empty. This ensures an empty loop through which the bile runs in a continuous stream if the gall bladder has been removed, reducing the danger of infection of the bile to the minimum. He thinks that the jejunum would be preferable even for anastomosis with the gall bladder and for all such operations on any of the bile ducts. The results were most excellent in the case reported, the patient being free from all disturbances and attending to her household duties. He has not been able to find records of any choledocho-jejunostomy or hepatico-jejunostomy in the accessible literature, but mentions that Monprofit recently suggested the feasibility of such an operation. Even at the discussion of the subject of operations on the biliary passages at the late International Surgical Congress, none of the members reported having attempted an anastomosis with the jejunum.

139. **Psychologic Expert Testimony at Trials of Alleged Witches at Stockholm in 1676.**—Gadelius reviews the history of Urban Hjärne, a prominent Swedish physician of the seventeenth century, who was the first to utilize in scientific therapeutics the mineral waters of Sweden. At the age of 35 he was called on as the psychologic expert to testify in one of the most peculiar criminal suits in the history of jurisprudence in that country, the witchcraft cases at Stockholm in 1676. His full report has been preserved and is cited. Trials of witches occurred again at Stockholm in 1704, 1720 and even as late as 1763, notwithstanding Hjärne's masterly testimony in regard to the delusions causing accusations of witchcraft.

Norsk Magazin for Lægvidenskaben, Christiania

April, LXX, No. 4, pp. 297-416

140 *Tumors in Nerves and Multiple Neurofibromatosis. (v. Reck-) F. Harbitz. Commenced in No. 2.
141 * culin Reaction in Children. E. Hellesen.
142 * (Essential hæmaturi.) N. N. Paus.

140. **Multiple Neurofibromatosis.**—In this concluding installment of his monograph Harbitz adds other case histories and autopsy findings, bringing the list of cases to thirty-four, with his conclusions from this experience. It seems evident, he thinks, that multiple neurofibromatosis is dependent on some anomaly in development, a malformation in the peripheral nervous system. This is demonstrated by its frequent hereditary and congenital character, its development early in life, the primary multiplicity of the lesions—a sure sign of a congenital anomaly—and the frequent coincidence of other congenital anomalies, malformations or deformities. The distribution of the patches of pigment does not seem to correspond to nervous influences and is probably likewise dependent on some anomaly in development. No complete spontaneous cure of a typical case of this disease is on record,

although some of the tumors have occasionally subsided. In one of his cases the symptoms of multiple neurofibromatosis were accompanied by a carcinoma in the ovary with carcinomatosis of the pleura and sarcomatous infiltration of the root of the mesentery. The patient was a woman in the fifties. In another case, the neurofibromatosis was accompanied by a carcinoma of the larynx. In another case a man of 35, now 70, presented numerous nodules which were diagnosed as sarcomatous, but all the nodules gradually subsided in the course of two years, although patches of pigment have developed since. Harbitz is inclined to regard the case as one of mild neurofibromatosis. Ten of the thirteen personal cases reported were in males. The affection did not develop in some until late in life, showing a remarkably long latency; in others it appeared at 6, 7, 9, or at puberty, in others not until after 40. He reiterates that external influences have nothing to do with the first appearance of the affection, and but little effect on its course later, although new tumors may develop at the site of traumas. Intercurrent infections and intoxications seem to display a greater influence, as also periods of physiologic stress, as at puberty, the menopause, during pregnancy and lactation. The tumors seldom require extirpation unless they *grow extremely large* or ulcerate. There was no local recurrence in his cases in which some tumors were removed on this account, and there was no recurrence when the excessive growth of the elephantiasis was removed more or less completely. In one such case the growth seemed to be arrested by partial excision. The pure multiple neurofibromas without other symptoms of von Recklinghausen's disease respond variously to operative intervention: in some cases they recur again and again after extirpation and in others the affection seems to be arrested, as in two of the cases reported. In other cases the recurrence assumes a malignant character; this seems to be peculiarly liable to be the case with a plexiform neuroma. If operative intervention becomes necessary some advise resecting the nerve for a long stretch, and, if sarcoma is already apparent, to make a high amputation of the limb. The previous installments were reviewed in THE JOURNAL, April 17 and 24, pages 1304 and 1372.

141. **Cutaneous Tuberculin Reaction in Children.**—Hellesen concludes from the findings of the cutaneous tuberculin test applied to 418 children that it is an important aid in diagnosis at this age, although the fact that it does not indicate whether the tuberculous process is active or latent detracts materially from its significance. This is of less account in the younger children, as the process has scarcely had time to become latent in children under the age of 2, for example. The reaction was positive in 97 per cent. of the *certain* cases of tuberculosis, in 59 per cent. of the suspects, and in 23 per cent. of 301 children free from signs of the disease. Negative findings were always confirmed by negative findings at autopsy, and *vice versa*.

142. **Idiopathic Hematuria.**—Paus presents the history of essential hematuria and reports a case in which the kidney seemed to be entirely normal when exposed, but the danger of recurrence of the hemorrhages was considered sufficient reason for removing the kidney, which was done. Nothing was found, even under the microscope, to explain the hematuria, which must be classed as idiopathic in this case. Cases are on record in which the hematuria recurred after nephrotomy, and secondary nephrectomy became necessary. Rovsing and others regard an exploratory operation as imperatively necessary.

Ugeskrift for Læger, Copenhagen

March 11, LXXI, No. 10, pp. 247-268

143 Treatment of Tuberculous Spondylitis. (Om Behandlingen af Spondylitis tuberculosa.) E. Nyrop.

March 25, No. 12, pp. 297-334

144 *Quantitative "Tuberculin Titer" Test. (Om kvantitativ Udførelse af den kutane Tuberkulinreaktion og om Tuberkulintiterens kliniske Betydning.) V. Ellermann and A. Erlandsen.

145 Otogenous Meningitis and its Operative Treatment. H. Mygind. Commenced in No. 11.

144. **Quantitative "Tuberculin Titer" Test.**—The announcement of Ellermann and Erlandsen in regard to the advantages of applying the cutaneous tuberculin test with a seri drops representing a graded concentration of the tuberc was mentioned in these columns, April 17, page 1300. cleanse the skin of the thigh with ether and then scarify skin with a vaccination lancet, each scratch about 1 or 2 long and at intervals of 3 cm., striving to make the scrat as uniform as possible. The first scratch is left for the trol, *on the next is placed a drop of the weakest* concentra of the tuberculin and so on in turn to the strongest con tration, using a 1 per cent., 2 per cent., 5 per cent., 10, 25 50 per cent. solution in turn. The faintest trace of infil tion is accepted as the lowest limit of the reaction. If zero point is with the 1 per cent. dilution, then the dilutio 1/100, and the "titer," the standard of titration, of the in question is 100. If the zero point is with the 25 per cent. tion, then the dilution is 25/100, and the "tuberculin titer the case in question is 25/100 or ¼. Two minutes after drops have been applied to the scratches the region is and the whole covered with a layer of sterile cotton, held place with strips of adhesive plaster. The reaction visible the end of forty-eight hours is the criterion. The findings extremely instructive; as in the cases with active tubercul processes *even the weakest concentration causes* a react while in those with latent processes only the strongest conc tration produces manifest results and the non-tubercu present no reaction whatever. The results of the test classify the cases, many of the clinical non-tuberculous h to pass into the active group, as also some of the sup latent cases. The "titer" method has also enabled them standardize tuberculins, and the simple technic for this p pose will certainly prove of great benefit in the clinic. In connection they make a strong plea in favor of internation standardization of tuberculin. The findings of the test on persons are tabulated under several headings, both in this ticle and in the German translation previously reviewed.

Books Received

All books received are acknowledged in this column and su acknowledgment must be regarded as a sufficient return for courtesy of the sender. A selection will be made for review in interests of our readers and as space permits.

THE PRACTICAL MEDICINE SERIES. Edited by Gustavus P. H M.D., Professor of Laryngology and Rhinology, Chicago Postgradua Medical School. Vol. I. GENERAL MEDICINE. Edited by Frank Bi lings, M.S., M.D., Head of the Medical Department and Dean of Faculty of Rush Medical College, Chicago, and J. H. Salisbury, A.M M.D., Professor of Medicine, Chicago Clinical School. Cloth. 403, with illustrations. Price, $1.50. Vol. II. GENERAL SURGER Edited by John B. Murphy, A.M., M.D., LL.D., Professor of Su gery in Northwestern University, Chicago. Cloth. Pp. 617, wi illustrations. Price, $2. Series 1909. Chicago: The Year-Boo Publishers.

A TEXT-BOOK OF SPECIAL PATHOLOGY. By J. Martin Beatti M.A., M.D., Professor of Pathology and Bacteriology, University o Sheffield, and W. E. Carnegie Dickson, M.D., B.Sc., F.R.C.P., Lec turer on Pathologic Bacteriology in the University of Edinburgh Cloth. Pp. 509, with illustrations. Price, $5. Philadelphia: Blakiston's Son & Co., 1909.

CATHOLIC CHURCHMEN IN SCIENCE. Second Series. By James J Walsh, M.D., Ph.D., LL.D., Dean and Professor of the History Medicine at Fordham University School of Medicine. Cloth. Pp 228, with illustrations. Price, $1 net. Philadelphia: Ameri Ecclesiastical Review, The Dolphin Press, 1909.

HUMAN PHYSIOLOGY. An Elementary Text-Book of Anatomy, Physiology and Hygiene. By John W. Ritchie, Professor of Biology, College of William and Mary, Virginia. Cloth. Pp. 362, with illustrations. Price, 80 cts. Yonkers-on-Hudson, New York: World Book Co., 1909.

MANUAL OF MILITARY HYGIENE for the Military Services of the United States. By Valery Havard, M.D., Colonel, Medical Corps, United States Army. Cloth. Pp. 481, with illustrations. Price, $4. New York: William Wood & Co., 1909.

THE GENERAL CHARACTERS OF THE PROTEINS. By S. B. Schryver, Ph.D., D.Sc., Lecturer on Physiological Chemistry, University College, London. Cloth. Pp. 86. Price, 80 cts. New York: Longmans, Green & Co., 1909.

THE HOUSE-FLY AT THE BAR—INDICTMENT—GUILTY OR NOT GUILTY? Paper. Pp. 48, with illustrations. April, 1909. The Merchants' Association of New York.

THE HUMAN SPECIES. By Ludwig Hopf. Authorized English Edition. Cloth. Pp. 457, with illustrations. Price, $3. New York: Longmans, Green & Co., 1909.

TRANSACTIONS TENNESSEE STATE MEDICAL ASSOCIATION, 1908. Cloth. Pp. 368. Nashville, Tenn.: Journal of Tennessee State Medical Association.